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BALTIMORE, FEBRUARY 23, 1905.

IF?

If the government, that is to say, a party in power in national affairs, should be entrusted with rate-making for railroads, how long would it take for such questions as competition of Gulf ports or any other kind of competition to become a drastic political club loaded at both ends?

RATIONAL SOUTHERN OPTIMISM

Mr. W. E. Meek, cashier of the Bank of Commerce, Clarksdale, Miss., writes to the Manufacturers' Record as follows:

I wish to express my grateful thanks for the good work your paper has done and is doing for the South in exploiting her exceptional advantages. In encouraging her enterprises, in encouraging and supporting movements looking to her welfare and in cultivating a rational and healthy optimism with regard to her future. If every man in the South would subscribe for the Manufacturers' Record it would be a great benefit to him and to his country.

FOR THE SOUTH'S WELFARE.

Referring to Mr. T. G. Bush's impressions of a visit to President Roosevelt, recently published in the Manufacturers' Record, Col. J. T. Murfee, superintendent of the Marion Military Institute, Marion, Ala., writes as follows:

Not only by publishing this article, but by the entire policy of your paper our Southern people have been benefited materially and spiritually. We shall never be able to measure fully how much of the Southern up-building has been due to you.

Mr. G. C. Terry of Nashville, Tenn., interested in industrial and commercial enterprises, in renewing his subscription to the Manufacturers' Record, writes:

It is a great paper. I have read it continually and always with increased interest. So far as I am able to tell, it is the most intelligent, alert and energetic friend the South has.

Mr. Arthur L. Bosley, president of the Electrical Material Co., Baltimore, Md., writes to the Manufacturers' Record as follows:

We have been advertising in your paper for several years, and take pleasure in saying that it has been a very profitable investment to us. We consider it the best advertising medium that we have ever used.

ON A CASH BASIS.

It is an advertisement of the J. K. Orr Shoe Co. of Atlanta, Ga., published in the State of Columbia, S. C., but it is so wise and apropos that it is worth reproducing. It reads:

It is not so much the amount of money one handles as it is what you have left at the end of the year that counts. The South is five times as prosperous as it was 10 years ago. Our real forward movement began with adversity—4½-cent cotton in 1895. Let us gather wisdom from experience. We should practice as well as preach less acreage, more homemade fertilizers, less debt for guano. Let us plant and sow all the things we eat. Live-stock pays. Thrifty housewives in the North clothe and educate large families on chickens and eggs. When we do more of these things at home as well as resolute in meeting, it won't make so much difference what price cotton brings next fall. The barns and smokehouses of the best farmers of this country were never so nearly full as today. The cost of the next crop can be made 25 per cent. less by the use of the same economies we learned so well in 1896, plus the saving grace of the cash system.

This sage advice finds the South, especially its cotton-growing section, fairly well equipped to follow it and determined to strengthen its position in that respect. In the Southern Prospect Supplement of this issue of the Manufacturers' Record, completing the series of letters from about 1000 bankers in the cotton belt, the story of the situation of cotton farmers begun last week is concluded. The story is one of a purpose to reduce acreage, and what is, perhaps, most significant, to turn that acreage into the raising of home supplies or of early fruits and vegetables, of poultry and potatoes, and of other crops for distant markets. It is a story of a will to live at home. That will carried out will mean greater independence than ever before of the cotton market and greater ability to give effect to plans for the organization and operation of a proper warehousing system upon a business basis, the surest means of preventing undue fluctuations in the market and of thereby benefiting buyers, handlers and sellers of the staple. It will mean a permanent cash basis for the Southern farmer.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 60 and 61.

MORE POWER FOR COLUMBUS.

Banking upon the industrial progress of Columbus of the past, the Enquirer-Sun of that city is advocating the building of another dam to supplement the power obtained from three dams now developing about 16,000 horse-power. It points out that genial climate, low taxation, cheap power and the success of industries already established invite others to the city, and that immediate steps should be taken to increase the power derived from the Chattahoochee, and it expresses the belief that if it should be authoritatively announced that another dam developing from 12,000 to 14,000 horse-power was to be

begun a large part of the power would be called for in the near future. There is ample basis for this argument. Columbus has a record of steady industrial progress, attributable largely to its cheap water-power. If that power is now fully utilized, or is approaching that condition, it is reasonable to believe that further progress would be guaranteed by additional power.

NEW BANKS IN THE SOUTH.

The financial progress of the South as marked by the extension of banking facilities is rapid and astonishing. Between the first of the current year and the middle of February there were either chartered, organized or opened throughout this section, including Missouri, Indian Territory and Oklahoma, according to reports received by the Manufacturers' Record, 167 financial institutions—commercial banks, savings banks and trust companies only being considered—with a total capital of \$9,093,500 as far as reported. It is not surprising, considering her vast area and the activity there prevailing, that Texas reports the largest number of banks of any State during this period of a month and a-half, but Georgia comes second with two-thirds of the number reported from Texas, and North Carolina third with only one less than Georgia. Alabama and Indian Territory, each with one less than North Carolina, are a tie for fourth place, but next, with an equal number each, come Kentucky, Tennessee and Mississippi, showing that the expansion of business in the older parts of the South is compelling the establishment of banking accommodations in many towns. Only in Maryland and the District of Columbia have there not been any banks organized, chartered or opened since January 1. The following table shows the distribution by States of these new financial institutions:

States.	No. of banks.	Total capital.
Alabama.....	14	\$459,500
Arkansas.....	5	290,000
Florida.....	5	1,140,000
Georgia.....	16	414,000
Indian Territory.....	14	485,000
Kentucky.....	11	307,000
Louisiana.....	4	85,000
Mississippi.....	11	505,000
Missouri.....	9	1,650,000
North Carolina.....	15	338,000
Oklahoma.....	9	245,000
South Carolina.....	7	235,000
Tennessee.....	11	295,000
Texas.....	24	2,340,000
Virginia.....	6	115,000
West Virginia.....	6	190,000
	167	\$9,093,500

Here follow in detail the names of the new banks and their capital, with several exceptions, in which cases either names or figures have not come to hand, although the organizations are completed:

Alabama.—Bank of Sulligent, \$20,000; New York Loan & Trust Co. of Birmingham, \$3500; Alabama Loan & Trust Co. of Birmingham, \$3000; Columbiana Savings Bank, \$25,000; London Loan & Trust Co. of Birmingham, \$3000; Lineville National Bank, \$25,000; Citizens' Bank of Elba, \$50,000; Savings Bank & Trust Co. of New Decatur, \$25,000; Talladega National Bank, \$100,000; First National Bank of Wetumpka, \$25,000;

Tusculumbia Bank & Trust Co., \$25,000; First National Bank of Hartford, \$30,000; Merchants and Farmers' Bank of Gadsden, \$100,000; Bank of Heflin, \$25,000—total, 14 banks, with a total of \$459,500 capital.

Arkansas.—Citizens' National Bank of Hot Springs, \$100,000; Bank of Belleville, \$10,000; First National Bank of Batesville, \$50,000; Bank of Prescott, \$100,000; new bank at Parkdale, \$30,000—total, 5 banks, with \$290,000 capital.

Florida.—First National Bank of Lake City, \$50,000; First National Bank of Corbin, \$50,000; Florida Banking & Trust Co. of Jacksonville, \$1,000,000; Citizens' Bank of Lakeland, \$25,000; new bank at Brooksville, \$15,000—total, 5 banks, with \$1,140,000 capital.

Georgia.—Bank of Fairburn, \$25,000; Bank of Newton County at Covington, \$31,000; Bank of Powder Springs, \$25,000; Bank of Sasser, \$25,000; Gainesville National Bank, \$50,000; Bank of Elko, \$25,000; Bank of Leslie, \$25,000; Farmers' Bank of Nashville, \$25,000; Greenville Bank of Tattnall county, \$30,000; First National Bank of Moultrie, \$25,000; Bank of Hamilton, \$25,000; First National Bank of Cochran, \$28,000; First National Bank of Hawkinsville, \$25,000; Bank of Rochelle, \$25,000; Bank of Milltown, \$25,000; Bank of Emanuel at Swainsboro, \$25,000—total, 16 banks, with \$414,000 capital.

Indian Territory.—Merchants' National Bank of Salisaw, \$50,000; Bank of Talala, \$10,000; Arkansas Valley National Bank of Broken Arrow, \$25,000; Bank of Rush Springs, \$40,000; Farmers' Exchange National Bank of Fort Towson, \$25,000; First National Bank of Porter, \$25,000; First National Bank of Konawa, \$25,000; City National Bank of Wagoner, \$50,000; American National Bank of Holdenville, \$25,000; Bank of Talihina, \$25,000; First National Bank of Boswell, \$35,000; Chickasha Trust Co., \$100,000; American National Bank of Sapulpa, \$25,000; First National Bank of Centralia, \$25,000—total, 14 banks, with \$485,000 capital.

Kentucky.—Davis Banking Co. of Upton, \$22,000; First National Bank of Manchester, \$25,000; National Bank of West Liberty, \$25,000; Farmers and Merchants' Bank of Edmonton, \$15,000; Powell County Deposit Bank of Stanton, \$15,000; Citizens' National Bank of Richmond, \$100,000; People's State Bank of Stamping Ground, \$15,000; First National Bank of Horse Cave, \$25,000; Lenora National Bank of Morehead, \$25,000; new bank at Fulton, \$25,000; Stithton Bank, \$15,000—total, 11 banks, with \$307,000 capital.

Louisiana.—Raceland Banking Association of Raceland, \$30,000; First National Bank of Arcadia; Bank of Chamberlain, \$20,000; Bank of St. Bernard, \$35,000—total, 4 banks, with \$85,000 capital.

Mississippi.—Ocean Springs State Bank; Bank of Montrose, \$15,000; Citizens' Bank of Gloster, \$25,000; Bank of Lyon, \$25,000; Citizens' Bank of West Point, \$50,000; Irwin Bank of Tunica,

\$50,000; State Bank of Gulfport, \$75,000; Commercial Bank of Fayette, \$50,000; Bank of Clinton, \$15,000; Merchants and Farmers' Bank of Lexington, \$100,000; City National Bank of Vicksburg, \$100,000—total, 11 banks, with \$505,000 capital.

Missouri.—Lincoln Title & Trust Co. of St. Louis, \$1,500,000; Farmers' Bank of Bellflower; American Bank of Green City, \$25,000; Clarence Savings Bank, \$20,000; First National Bank of Golden City, \$25,000; First National Bank of Bosworth, \$30,000; First National Bank of Seneca, \$25,000; Bank of Cooter, \$10,000; People's Bank of Flat River, \$15,000—total, 9 banks, with \$1,650,000 capital.

North Carolina.—First National Bank of Kinston, \$50,000; Citizens' National Bank of Gastonia, \$50,000; Citizens' Banking & Trust Co. of Concord; First National Bank of Louisburg; Wake County Savings Bank of Raleigh; Bank of Marshallville, \$10,000; Bank of Pamlico at Bayboro, \$10,000; Bank of Caswell at Milton, \$25,000; First National Bank of Henderson, \$50,000; Bank of Southern Pines, \$10,000; Bank of Hot Springs, \$10,000; Bank of Cooleecee, \$5,000; Commercial and Farmers' Bank of Mebane, \$8,000; Bank of Tryon, \$10,000; Merchants and Farmers' Bank of Apex, \$100,000—total, 15 banks, with \$338,000 capital.

Oklahoma.—First National Bank of Custer City, \$25,000; Bank of Commerce of Perry, \$10,000; Temple State Bank, \$10,000; Farmers and Merchants' Bank of Lahoma, \$15,000; Western National Bank of Enid, \$100,000; Farmers' State Bank of Tarlton, \$10,000; State National Bank of Blackwell, \$25,000; Pawhuska National Bank, \$25,000; Oklahoma State Bank of Enid, \$25,000—total, 9 banks, with \$245,000 capital.

South Carolina.—Bank of Blacksburg, \$15,000; Merchants and Planters' Bank of Mullins, \$25,000; Heath-Jones Company of Laurens, \$50,000; Bank of Leesville, \$30,000; Farmers and Merchants' Bank of Lake City, \$25,000; Citizens' Bank of Batesburg, \$30,000; Farmers & Merchants' Bank & Trust Co. of Sumter, \$60,000—total, 7 banks, with \$235,000 capital.

Tennessee.—Cottage Grove Banking & Trust Co., \$20,000; Dukedom Bank, \$15,000; Merchants' Trust Co. of Memphis, \$200,000; Farmers and Merchants' Bank of White Bluff, \$20,000; Bank of Brazil; National Bank of Jellico, \$25,000; Rockwood Bank & Trust Co., \$25,000; Erin Banking Co. of Houston county, \$25,000; Bank of West Nashville, \$25,000; a new bank at Medina, \$25,000; People's Bank of Cookeville, \$15,000—total, 11 banks, with \$295,000 capital.

Texas.—First National Bank of Eagle Lake, \$25,000; First National Bank of Kerens, \$25,000; American National Bank of El Paso, \$200,000; Farmers and Merchants' Bank of Tyler, \$100,000; City National Bank of El Paso, \$100,000; Farmers and Merchants' Bank of Mart, \$40,000; Riddle Exchange Bank of Dallas, \$600,000; Commercial National Bank of Goliad, \$30,000; Farmers and Merchants' Bank of De Leon, \$50,000; Snyder National Bank, \$25,000; Southern Bank & Trust Co. of Dallas, \$500,000; Citizens' Bank of Godley; First National Bank of Knox City, \$25,000; First National Bank of Frankston, \$25,000; People's National Bank of Lampasas, \$25,000; new Bank of Ravenna, \$10,000; Comal National Bank of New Braunfels; Farmers and Merchants' Bank of Nocona, \$30,000; First National Bank of Benjamin, \$25,000; Alvarado Banking Co., \$25,000; First

National Bank of Savoy, \$25,000; McGregor National Bank of McGregor, \$400,000; Citizens' National Bank of Stamford, \$30,000; First National Bank of Seagoville, \$25,000—total, 24 banks, with \$2,340,000 capital.

Virginia.—Bank of Highland at Monterey, \$15,000; Farmers and Merchants' Bank of East Radford, \$25,000; First State Bank of Chase City; First National Bank of Waynesboro, \$25,000; Virginia Banking Co. of Roanoke, \$25,000; Hallwood National Bank, \$25,000—total, 6 banks, with \$115,000 capital.

West Virginia.—Bank of Durbin, \$30,000; Bank of Athens, \$25,000; Bank of Keystone, \$25,000; First National Bank of Pineville, \$25,000; Merchants and Farmers' Bank of Oak Hill, \$60,000; Bank of Gauley at Gauley Bridge, \$25,000—total, 6 banks, with \$190,000 capital.

Although the Manufacturers' Record received during the period covered by this list reports showing that a number of other banks are proposed, no consideration has been given to them, notice being taken only of such institutions as have apparently progressed so far in organization that they are assured of beginning business, if they have not already done so.

FAITH IN NEW ENGLAND.

The announcement of the transfer from Bradford, England, to Greystone, R. I., of the mills of Joseph Benn & Sons, manufacturers of mohairs and alpacas, ought to bring pause to the pessimism about decadence of industry in New England, which has been frequently voiced in the recent past. According to the New York Journal of Commerce, the new mill, which will occupy a building 400 feet long, is nearing completion, and work is being rushed in setting up the machinery to begin operations upon a small scale. The industry is expected to employ ultimately not less than a thousand operatives, and the building of cottages for them has already infused new life in the village where formerly wool-shoddy mills were operated. The operation of the American protective tariff and the steady increase of the business are given as the reasons for its transfer to this country from England. Its establishment in a New England State ought to encourage those New Englanders who have been prone to see in the natural rise of the Southern cotton-mill industry only disaster for their section. There is enough suggestion in the move of Joseph Benn & Sons to eliminate even the slightest hopelessness from any New England mind and to strengthen there the old spirit which more than once has been manifested in turning apparent defeat into victory.

THE AUTOMOBILE AGE.

Washington city, with its easy grades and pavements of smooth asphalt, is ideal for automobiling. The use of the motor car for business or for pleasure is quite general there, but an impetus to its employment commercially will be given should a bill now before Congress granting a franchise for automobile passenger lines become law. In explanation of the project Vice-President George H. Harries of the Washington Railway & Electric Co. has written a letter in which he explains routes already outlined in North and Northeast Washington, and says that it is proposed to operate by electric storage batteries vehicles seating 24 persons. He adds that the plan is hardly regarded as a profitable proposition, but as an excellent and altogether unob-

jectionable means of the development of traffic along streets where railway transportation is not now practicable. The plan indeed appears to be an effort to use the automobile as a feeder to street railway lines, eliminating the waste of competition or the loss of substitution. It is indicative of the steady progress in popularity of the automobile.

AGAINST EXTRANEUS AGITATION.

The Manufacturers' Record has received the following from Mr. V. E. Nichols, secretary of the South Side Lumber Co. of Chicago, Ill.:

Each week as your publication comes to our desk we find something of more than passing interest in its columns. Your staunch support of the South, with forcible, logical argument in support of its institutions, customs established by time, and the frank manner in which you discuss the same appeal very strongly to us, whether we agree with you in every instance or not.

In your issue of February 9 we note with interest your expose of the Ogden Movement. This is in close accord with your position on other Southern educational questions, from a distance of 1000 miles or more, permeated, as it is, with race-class distinction, that time alone will solve the problem without great hardships on either race or the spilling of blood. Non-interference will go a long way toward a better feeling between the two races.

The fires of hatred, animosity and prejudice, generated to a great extent by both the Northern and Southern press, should be banked and allowed to die out. This should be encouraged at every move. Politics should not be allowed to take a position endangering the progress being made by the negro, who has made his way from the lowest round on the ladder of human civilization to his present prominent position only through slavery and the indulgence of his Southern white master, superior, coworker or brother, whichever phrase you prefer.

Keep up your good work of setting the facts forth clearly and without fear, and rest assured that you are receiving the moral support of the large percentage of the thinking men and women of the North.

SOCIOLOGY VS. SOUL-SURGES.

One of the forewords of the "first annual meeting" of the so-called National Child Labor Committee of New York had the following familiar twang:

The meetings of this society are attended with much interest, both on account of the subject and of the speakers. Prominent divines of every denomination will speak, and their conclusions will be of interest to the entire country.

The meeting was scheduled to occupy parts of three days last week. It was of such tremendous moment that its daily organ, the New York Times, felt moved to fill as much as probably three-quarters of a column with reports of two days' proceedings, and apparently missed altogether the proceedings of the third day, which were to have their acme in an address by a "prominent divine" of North Carolina, known as the assistant secretary for the South. Several explanations of this lapse may be suggested. In the first place, "the intelligent linotype of the Times office" may have been just a bit shy; then there was Little Hungary, but more especially the Dinosaur dinner and the soul-surfing of Purinton. What show was there for sociology?

THE COTTON MOVEMENT.

In his report for February 17 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 170 days of the present season was 9,301,439 bales, an increase over the same period last year of 803,864 bales; exports were 5,463,560 bales, an increase of 647,769 bales; takings by Northern spinners 1,448,073 bales, a decrease of 183,497; by Southern spinners 1,245,333 bales, an increase of 84,402 bales.

BY THE COMPANY ONE KEEPS.

It is interesting to note that the most enthusiastic and persistent defenders of the first president of the University of Virginia against the criticism of Senator Bailey and other thinkers are the New York Tribune, the New York Evening Post, the New York Mail (and Express) and the Springfield Republican. Shades of Thomas Jefferson!

A COLONY AND A CEMENT PLANT.

A correspondent of the Manufacturers' Record says that he has in mind a particularly attractive proposition for a colony in Alabama, and would like to secure the interest of proper parties. He says that he is also in touch with a splendid opportunity for securing a Portland cement location at most reasonable terms. Letters addressed to "Alabama," care of the Manufacturers' Record, will be forwarded to this correspondent.

TO ATTRACT INDUSTRIES.

The board of aldermen of Asheville, N. C., is considering a proposition looking to the exemption from taxation for a term of five years of new manufacturing industries to be established in the city. The Board of Trade has for some months been active for the encouragement of manufacturing, and a committee of that body will confer with a committee of the aldermen about the exemption plan. Such a policy has worked out well in other communities, and with its many advantages as a manufacturing site Asheville would adopt it probably with profit.

PROPERLY CATALOGUED.

The social reform wave, which, under the auspices of the National Child-Labor Committee of New York, was to sweep through the South, beginning in North Carolina, has been dashed into spray against a wall of common sense and ability to mind one's own business. In North Carolina the failure took the form of "child-labor" agitation; in South Carolina it wore the plausible disguise of "compulsory education," deceiving even the elect. Four or five years ago the same attempt against the South was fostered by an English female agitator in the employ of the Federation of Labor. The interest of that organization in the latest revival cropped out at Raleigh. The promoter of the bill there notified the manufacturers of the State as follows:

"If this measure becomes a law by your acquiescence I shall undertake to see that there shall be no further agitation of the child-labor question for a period of four years, at least, while the other manufacturing States of the South are catching up with North Carolina."

Those were high-sounding words. Their complement was presented, after the defeat of the bill, by W. E. Faison of Raleigh, a representative of the American Federation of Labor, who, backing up the promise of the Assistant Secretary for the South of the National Child-Labor Committee of New York that continued agitation would follow defeat of the measure, said:

"Every reform movement must of necessity have a leader fearless and incorruptible. We have such a one in Dr. McKelway."

It is well for the American public to get down to the bedrock of a reform movement, even if its propagandists are unaware of it.

Wants Machinery Catalogues.

The Fairbanks Company, Baltimore, Md., reports the loss by fire of its catalogue files and price-lists, and invites manufacturers to send new copies. Manufacturers of all kinds of machinery and supplies are invited to meet this request immediately.

Alabama's Advantages for Industrial Advance—IV.

[Special Correspondence Manufacturers' Record.]

Birmingham, Ala., February 20.

In this attempt to portray industrial conditions and some of the possibilities of future development in the Birmingham district, from which as a center there will radiate all sorts of industrial activity throughout this State and section, to the advancement of all the South and the benefit of the entire nation, the chief difficulty has been found in the changes that have occurred ever since my investigations began—changes belonging to conditions of any active development, and which in this instance affect the viewpoint and add immeasurably to the importance of various factors here and introduce elements which it is yet wholly impossible to limit or define. Since I came to this district the International Power Co. of New York, whose American Locomotive and other subsidiary companies are among the greatest users of iron and steel in the country, has bought control of the Alabama Consolidated Coal & Iron Co., and if no further interests were to be acquired here by the International Power this were enough to insure a development in a manufacturing way which would mean the beginning of a new era in iron and steel making in the South. For already authoritative announcement has been made that it will be the purpose of the new owners to establish machinery plants and other industries that will ultimately manufacture into finished form all the products of the Alabama Consolidated—not only all which the present capacity of the company can turn out, but those which a much-increased capacity will make available.

Now on top of such revolutionizing movements comes the further intimation from the financial newspapers of New York that Mr. Hoadley's company has no less a purpose than the purchase of such other leaders in coal, coke, iron and steel production here as the Tennessee, Sloss-Sheffield and Republic, these comprising all of the big furnace companies in the South, and that control of the Tennessee Company has already passed to the hands of International Power. While no authoritative announcement has been made up to this hour, such reports as have been printed in the daily newspapers contain so much of circumstantial detail as to give them an air of credibility, and no one who knows the big way in which Mr. Joseph H. Hoadley does things would be surprised to see him proceed without stopping till his company is in position to dominate the iron and steel industry of the South. Halfway measures are unknown to him: he has doubtless become fully conversant with every detail of the situation here, and knows that existing companies control the bulk of the workable iron ore of this district, and his keen sweep of vision has most likely revealed to him the tremendous possibilities for the development of machinery making and all kinds of iron and steel working which are afforded by the cheaply-handled minerals of the South. The only hesitancy I have in discussing these matters now is the fact that Mr. Hoadley acts with such remarkable swiftness when he has once mapped out a course that the chances are, if he really has determined to attempt a consolidation of the large interests named, that he will have put through the deal and it will have passed into history before this letter appears.

However, the Alabama Consolidated purchase has been made, and that of the Tennessee Coal, Iron & Railroad Co., too, if appearances are not deceptive, and this move is sufficient to put a new value on Southern iron-ore properties and well-equipped and properly-managed furnaces; for it means a development of industries such as the district has never before known.

It is altogether likely, too, that this development of iron and steel making industries will stimulate activity in many other lines. Interest will be greatly attracted to all the advantages and the resources which this district, State and section contain, and it will be seen that hardly more than a beginning has been made in any direction. There are forests of pine and hardwood here, although little use of them is now made except to saw up some timber, to be largely shipped from the State. Only a start has been made in the way of furniture making and the use of wood in the finer and more expensive forms. There are materials of all kinds right in Red Mountain and close at hand to build and finish a skyscraper. The railroad cut of the Alabama Great Southern at Gate City gives practically a cross-section of Red Mountain. It shows dolomite, limestone, brown and red sandstone, iron ores, chert, clay and shale for fine brick, making a product almost the equal of any pressed brick; fire-brick clay, a 25-foot vein, from which excellent terra-cotta building blocks are made, and then gravel and shale. There is timber on top, and even slate may be found beneath. Here and nearby are almost inexhaustible quantities of all kinds of building and construction materials. In a large part of Alabama there are beds of the finest kind of limestone, suitable for Portland cement—enough to supply all the requirements of the Panama canal construction and hardly miss it. There are several lime plants in operation here, but there has been very little done toward the extensive and scientific utilization of these vast possibilities of wealth production. Until recently terra-cotta building blocks have been shipped from the North, and even yet there has been no more than a small beginning made in their manufacture here. There are but two or three sand-lime brick plants in Alabama, and while there are numerous ordinary brick plants in the State, most of the finishing bricks are shipped in from the North. There are some fire-brick made here, at Bessemer and elsewhere—enough to demonstrate that they may be made here to advantage—but much of this material is shipped in.

Within 40 miles of Birmingham, at Sylacauga, marble quarries have been opened up by Louisville parties. Here the lead runs for 25 miles, as already located, and as far as the drill has gone, some 400 feet, there is marble all the way. Metallic substances have colored some of the marble, so that it ranges from the purest white to many kinds of variegated. Some of this marble was on exhibition at St. Louis, and it was declared by sculptors to be even superior to the world-famed Carrara marble of Italy. Some of it has gone into the costly residence of Senator W. A. Clarke in New York city, and it was also used in the new Minnesota capitol.

In the way of recent utilization of long-known resources is the operations of the Southern Sulphur Ore Co., which has spent \$2,000,000 in building a 24-mile railroad from Stockdale to the mines at Pyriton, in Clay county, Alabama, and in developing the old pyrites mines, which have lain idle until so recently that few even of the authorities on sulphur production know of the activity that is going on. Here during

the war the Confederate government tunneled under the mountain, set up sulphur works, carried the product by ox-cart to La Grange, where it was shipped to Augusta, and there was made a large part of the powder used on the Confederate side. Although the old workings are still to be seen, the 24-mile distance from a railroad deterred any recent operation of the mines until the present company took hold about three years ago. They have hardly more than got under headway yet, having been in operation about a year, but since the completion of the railroad two other companies have also started to operate, and an important development is under way. The pyrites lies in a vein from 4 to 14 feet thick, and the deposits are very extensive ones. The ores are sold according to analysis. They run from 30 to 50 per cent. sulphur, and bring from \$6 to \$12 a ton. About the only other pyrites mines worked in the United States are in Virginia. Much sulphur is imported to this country from Spain. Its great use is the basis for the manufacture of fertilizers.

In a chemical way, there are two other industries here which go to prove opportunities rather than furnish instances of their utilization. At Ensley the Semet-Solvay plant, whose home office is in New York, has a \$2,000,000 plant devoted to the manufacture of coal tar, creosote, ammonia and other by-products from coal. Gas and a coke residue are furnished to the furnaces of the Tennessee Company located nearby.

At Grasselli, a station near Birmingham, are the works of the Grasselli Chemical Co., where hydro-chloric and other acids used in laboratory work are manufactured, and where some of the acids from the Semet-Solvay plant are utilized.

The millions of tons of chert in this district are already used to a large extent, and being so close at hand and so cheap, Jefferson county boasts more than 200 miles of the finest kinds of macadam roads. Every road leading into Birmingham for 25 or 30 miles out is improved with this material, and a road is produced at a cost of about \$1 a lineal foot that in New York would cost \$10 a foot. Owners of good chert properties are getting 10 cents a ton royalty on the product, which is shipped in large quantities to Atlanta, Savannah and many other places in the South.

It almost seems that this district contains in vast quantities about everything required for the comforts and conveniences of civilization, as well as fuel and raw materials to form the basis of an industrial development such as no other part of the world can claim. And while there has been much and most creditable development, the evolution has gone hardly further than to demonstrate the opportunities that exist in nearly every line. Almost every kind of an industrial proposition is a good one here, depending mostly on managerial capacity and proper capitalization. In this connection it is declared that the people here have so much faith in the future of the section that they are willing to take stock in almost any good well-managed proposition. Naturally, the first developments were along elemental lines. First, the coal was mined for sale. Then coke was produced to sell, and iron ore was mined and sold as such. Then came the manufacture of pig, and then rolling mills, pipe works, etc., and now the steel-rail-making stage has been reached, and engines and some machines are also being turned out. Success in these lines encourages other ventures, until now comes the great advancement which the entrance of important outsiders marks.

That the development from now on will be more rapid and extensive than any heretofore known is universally conceded to be true, and it is not doubted that the next 10 years will see a greater growth than are contained in Birmingham's previous 35, and, indeed, a frequent prediction is heard that Birmingham will do more in the coming 25 years than Pittsburg has done in the last quarter century of her existence. The development of the South, of the countries of the Gulf and of the Orient all means much to the section where iron and steel can be produced cheaper than anywhere else, and this would be sufficient to build a great industrial center here were there nothing else. How much greater, then, must the development be when so many other opportunities exist besides! Alabama is one of the important cotton-growing States, and yet there are in the whole State today only about 800,000 spindles, a number vastly inferior to those of dozens of New England towns, and but a fraction of those in cotton-making centers like Fall River, New Bedford, Manchester, etc. It is inevitable that the day must come when cotton manufacturing in various forms will engage the attention and the capital of not only local men, but of those from outside, and with the further development of the cotton industry here and all over the South will come something of a growth in the manufacture of engines, machines, tools, etc., along such lines as has made New England, wholly lacking in fuel and raw materials, one of the busiest and richest industrial sections in the world.

Birmingham has done marvelously well in laying foundations for future greatness. The town itself, with its broad and well-paved streets, its county system of sanitary sewerage, its well-equipped water-works with crystal-pure filtered water and present capacity for the requirements of a city of 500,000 people, its superior system of street railroads, its network of steam railroads, embracing most of the important systems of the South, and its citizenship of thoroughgoing and enterprising people, is a foundation of the most substantial and attractive sort. It is financially in good shape, and it bears evidence of its prosperity and thrift in every lineament. Its people are active, and they believe in doing things. The banks hold deposits of some \$14,000,000. Creditable as are these figures, they must be looked at in the light of these facts—that all the big corporations here do not carry heavy deposits in the city banks, their banking being largely done in Chicago, Baltimore or New York, and the merchants and business men of Birmingham do not hold their money, their surplus cash being invested in properties, industries or stocks. Industries here are being enlarged and improved, and investments in these and in new enterprises foot up some \$20,000,000 for the year. This is largely local money that has been made out of developing industries here or in marketing securities on the same. Now the era of wholly new outside capital has begun, and it is figured that anywhere from \$50,000,000 to \$100,000,000 will be added to the wealth of this district by the location of new industries and the carrying out of plans which the new owners of Alabama Consolidated have in mind.

Looked at from every side, and giving to the consideration of the case the benefit of other sections' experiences, where great centers of population and wealth and industrial activity have been built up on but a part of the advantages that are here possessed, it is impossible to reach any other conclusion than that at Birmingham there will be built up one of the greatest cities of the South, and that in time may become one of the richest in the world.

ALBERT PHENIS.

GOVERNMENT RATE-MAKING.

Mr. T. G. Bush's Views Upon the Transportation Problem.

[Special Cor. Manufacturers' Record.]
Washington, D. C., February 20.

Bearing on the proposed discussion of railroad rates now before Congress, Mr. T. G. Bush, president of the Alabama Consolidated Coal & Iron Co., has written a letter to a member of Congress from Birmingham which is worthy of careful study at the present time. In his letter Mr. Bush says:

"The proposed legislation with reference to granting more power to the Interstate Commerce Commission for fixing railroad rates, as you know, has attracted widespread attention, and very naturally a large number of interested persons, including shippers or patrons of railroads of all classes, appear to sympathize with this movement, laboring under the impression that all corporations are evils, but that the worst of all are railroad companies.

"It is rarely the case that any community thinks it enjoys as low rates as it should, and most every center of trade can see good reasons why it should have advantages over others. This disposition on the part of individuals, business corporations and communities has naturally brought great pressure to bear on railroad companies to extend extra favors in the form of discrimination or rebates. It is not natural to assume that railroad managers, unless where in exceptional cases they are actuated by personal motives, will likely make these concessions voluntarily, but such concessions are largely the result of shippers—by one influence or another, or by the offering of a larger volume of business—being able to pit one carrier against another, thus forcing all to yield to their demands. Doubtless the most serious cause of complaint is where the large, influential shipper is able to enforce his demands for rebates or concessions in rates, and thus cause discrimination against the smaller shipper to his great loss, and sometimes to his ruin. The message of the President to Congress concerning this matter clearly indicates that the majority of complaints coming to his knowledge were with reference to rebates and discriminations, and not based on general contention that rebates are on the average too high. It apparently occurred to the President that possibly the best means for correcting these evils would be in giving enlarged powers to the Interstate Commerce Commission, particularly with reference to fixing rates. It seems it did not occur to him that the law at present requires published and uniform rates, to which all shippers shall be entitled, and also fixes a penalty for any discrimination by concessions, rebates or otherwise. On reflection, it would be difficult to see how the power on the part of the Interstate Commerce Commission to fix rates would of itself prevent the same rebates and concessions as are now obtained under certain conditions, and it does not appear that the law could be much more stringent with reference to such concessions. It is, therefore, highly improbable that the power to fix rates will accomplish the desired end. It certainly is wise on the part of Congress, if it is practicable to do so, to adopt all necessary measures to more thoroughly enforce the laws which now exist, the letter of which seems sufficient to thoroughly protect all patrons of railroads engaged in interstate commerce. It must appear to any thoughtful business man that the power on the part of the Interstate Commerce Commission to fix rates and enforce same on their demand would be attended with great danger, not only to the railroad interests, but indirectly to every interest concerned in interstate commerce. In the

first place, to say that any five or ten men who may be selected as members of the Interstate Commerce Commission—if we are to judge by the past, both as to selections made for State and interstate commissions—would be capable of fixing proper rates and adjusting them according to circumstances as to location, etc., thus treating equitably all interests concerned, would be a most unreasonable proposition. It is well known, however, that these commissions are not constituted of persons who, by temperament, training or experience, are competent to adjust these nice differences and at the same time to judge fairly and intelligently, under all the circumstances, as to what a reasonable rate is in the interest of the railroad company and those who have invested their money in that way, and whose interests should be considered. It is well understood that one of the most difficult things in connection with the successful operation of railroad companies today is to find trained talent to do this kind of work.

"There have been instances where State railroad commissioners have undertaken to say what certain railroad property should be worth, or what it should have cost, seeking in this way to discover what the reasonable earnings should be per mile. You can see at once how action of this kind would lead into deep water and confusion. Various conditions attend the construction and equipment of railroads. In many instances certain sections of a railroad line will cost several times as much as other lines with possibly a larger volume of business. No account, of course, in such valuations is taken of renewal or extraordinary cost for maintenance, and increased cost for terminals, etc. In other words, it would strike any thoughtful man as practically an impossibility for men without experience and training in railroad construction and operation to justly decide questions of this kind. The question of rates, in a general way, is taken care of by competition or by the general tendency and disposition of railroad managers to make the rates as low as possible consistent with good service and proper maintenance of their lines, in order to increase their volume of business. The gradual reduction in rates on all commodities in the past 20 years thoroughly confirms this fact.

"Of course, you will not understand me to say that all railroad officials and employees are always ready to do only the right thing, and therefore need no restraint. They are human, and for various reasons are likely to err; but it would be unfair and unreasonable to condemn an entire class of such men on account of the shortcomings of a few. Of course, laws should be made to regulate commerce and accord fair treatment to all concerned, so that no transportation company could, if it so desired, do an injustice to any one of its patrons or discriminate in favor of one as against the other. But while that is being done care should be taken that a large number of innocent people should not suffer by the inauguration of rules and regulations so severe in their effect as to cause them serious loss in the value of their holdings.

"I cannot conceive of such power as proposed over railroad rates being given without causing more or less demoralization in the business of the country. Any act that would seriously affect the railroad interests would be far-reaching in its effect. Nothing is so essential to the prosperity of the country as for the railroads to be able to render efficient service and to extend their lines as the necessities of various sections of the country may demand. If they are not reasonably prosperous, and thus secure the confidence of the public in their securities, they will be

powerless to make these extensions and to provide proper maintenance and necessary equipment for rendering the best service. It must be borne in mind that the railroad companies of this country have at least 1,000,000 employees, whose wages are dependent, in a large measure, upon the successful operation of the various lines. It must also be remembered that the railroad companies are the largest single consumers of the manufactured products of the country, especially iron and steel, taking probably one-third of the output of this country. When you consider further the men engaged in the manufacture of cars and other equipment essential for railroad companies dependent upon their prosperity by the successful operation of these various industries, you can see at a glance how far-reaching the effect of legislation would be that is harmful or depressing to the railroad interests of this country. It is a mistake to think that the ownership of the railroad companies of this country is concentrated in a few hands. It is stated that the Pennsylvania Railroad Co. has 40,000 stockholders, who have purchased the stock of that company as an investment, and so regular have been the dividends and so strong the confidence of the public in that railroad system that it has been able to extend its credit almost without limit to make further great improvements for the public benefit and convenience. There are other large systems which occupy similar positions. It is gratifying to know that the securities of the principal railroad systems in the South are being sought as an investment, such as those of the Louisville & Nashville, the Southern, Atlantic Coast Line, Illinois Central and others. I especially call your attention to the fact that we have in the Southern States about 60,000 miles of railroad—pretty nearly one-third of the total mileage of this country. You are aware of the fact that no one agency has contributed so much to the development of the South as the railroads, and while they have grown and their securities become more profitable, they have many times increased the value of other kinds of property. It has been a fortunate thing for the South that the management of the systems traversing the Southern territory has been in the hands of men of ability and high integrity. It would be difficult to conceive that such men as Stuyvesant Fish, Samuel Spencer, H. Walters and M. H. Smith would inaugurate any system of rates that would be oppressive to the patrons of their roads, or would propose any method of discrimination. Neither could it be charged against these men that they have intentionally violated the laws regulating railroads, for it is well known that while they are jealous of the rights of the properties which they manage, they are considerate and thoughtful as to the interests of those to whom they render service. These managers of their respective roads are unanimous in their belief that the proposed legislation, giving power to the Interstate Commerce Commission to fix rates, would be harmful to the railroads as well as to their patrons. I refer again to the practical impossibility for men who are not experienced and trained in railroad traffic matters to prescribe rates that would be reasonable and fair under all circumstances. This is easily understood when you remember a statement that was made by President Samuel Spencer a few days ago that there were on file more than 2,000,000 tariffs with the Interstate Commerce Commission, and that there are filed as many as 130,000 new tariffs each year. Then again, the principle of the law proposed would be radically wrong and at variance with all known methods of adjusting grievances or wrongs. The law as pro-

posed empowers the commission, on a grievance of any individual or patron of the road which would appear reasonable to them, to force the railroad companies to adopt such rates and afterwards to prove whether or not they are reasonable and fair, or, as some bill may provide for, enjoining the commission from enforcing a rate until it should be determined by a court of jurisdiction that it is fair and reasonable. Injunction suits of this kind would not only involve immense labor and expense, but would certainly be a fruitful source of friction between the railroad companies and their patrons. It would be just as reasonable to promiscuously arrest persons for a crime on mere suspicion, put them in jail and demand that they prove their innocence. It is right that the commission should consider grievances of shippers and investigate as to whether such grievances are well founded, and if so, to have put in operation fair and reasonable rates, but not to enforce a rate and later investigate as to its reasonableness. Where the law is violated, and where one shipper is discriminated against in favor of another, the penalty should be severe and the law ought to be enforced. That is the source from which the chief cause of complaint arises.

"I would not, of course, reflect on any member of the present commission, or on anyone who might hereafter be appointed, but if a few men should possess this great power over the railroad corporations of this country there would be room for undue influence as against the present method of adjusting rates. You can readily understand that when the public receives the impression that all grievances and complaints are likely to be entertained in a way, either in enforcing temporary or until otherwise determined, rates that the commission may consider fair and reasonable, or to be put in force subject to injunction, the commission would be flooded with demands from all sections of the country and other various influences would be in danger of being biased in favor of such plaintiffs, as it seems quite natural for railroad commissioners generally to feel that they are the attorneys or representatives of the patrons of the road, without realizing fully their moral and legal obligation to deal fairly with both interests. It is reasonable to infer, also, that in selecting the Interstate Commerce Commission a large number would naturally be from the East and middle West, and their sympathies would naturally be with those sections of the country, and if they should lean either way in determining competitive rates to the ports it would be in favor of the North Atlantic ports as against the South Atlantic ports. I mention these things as possibilities which may arise. It seems to me, taking seriously into consideration the whole situation, that it would be a most unfortunate thing if Congress should too hastily decide as to what ought to be done in addition to the laws already in operation. I believe that you and others will look at this matter in an unprejudiced way and realize the fact that while the business interests of the country desire that the railroads should be under reasonable restraint, and should be required to treat all shippers alike, there is danger of harming the business interests when extreme measures should be hastily adopted."

The Monongahela River Consolidated Coal & Coke Co. is preparing to put into service at New Orleans about May 1 a mechanical coal-loading device, practically doing away with the negro and the wheelbarrow.

Rice mills in the Louisiana-Texas section are installing machinery to manufacture flour from rice.

THE BIRMINGHAM DISTRICT.**Large Sales of Iron to a Few Interests Reported.**[Special Cor. Manufacturers' Record.]
Birmingham, Ala., February 20.

In the iron market the business concluded during the week was in volume a material increase over that of the preceding week. Some options that were open when last letter was mailed were closed by acceptance, and several round lots were taken. But the selling was confined to only a few of the interests. Rumors are current of large sales, and the aggregate is stated at 100,000 tons. This is probably in excess of what was really done. But it is safe to put the amount at 60,000 tons. They would have been greater had the demand been fed to its desire. Lots of 10,000, 5000 and down to 1000 tons were in demand, and some of the buyers got the amounts wanted, and some who held off were finally disappointed, obtaining only a part of their requirements because of delay in acceptance of offerings. On this class of business the price paid was on the basis of \$13.50 for No. 2 foundry. The deliveries were mainly for the second quarter, but gossip has it that a material part of the sales was for delivery the third quarter, and indications point to correctness of assertion. There was good buying on the part of the medium and small buyers, and the price obtained was on the basis of \$13.75 and \$14, depending on the delivery and other circumstances connected with the sale. No. 1 soft and foundry each sold at \$14.50 for nearby delivery. The majority of the sellers are pretty firm at \$14 now for No. 2 foundry, and the buyer who obtains his iron now for less than \$14 can consider himself as fortunate. On Saturday there were sales on the basis of \$13.75 for No. 2 foundry, one being for 800 tons. The pipe interests were the principal buyers of the round lots, and nearly all the purchases made were for actual melting. There was one notable exception, as one merchant firm entered the market for a round lot, and that they obtained it is generally conceded. There were some sales of No. 3 foundry at \$13.25 and some at \$13. At this price some No. 4 foundry was also sold, but only in small amounts. Gray forge went at \$12.75, and in a limited way also at \$13. The bad weather has been against the maximum production, and it has been against the production that has prevailed previous to its advent. This has militated against prompt delivery on maturing contracts, and in some instances the furnaces are lagging behind in this respect. It has also caused a suspension of operations in some instances, and thus diminished output.

The situation as to coke and coal has not improved a particle, and in some instances furnaces are barely able to keep going. Before there is any improvement in this respect there must be a change in weather conditions. There is a feeling that we have passed the worst part of discouraging influences, and that matters will improve from now on. Coke will bring for prompt delivery any price from \$3.75 to \$4, and possibly more. The thing is to get the coke and avoid shutting down of the furnaces. The supply of coal has also been very short, and though we are right in the heart of the coal fields, the local supply ran short and the price was jumped to \$5. The heavy rains flooded some of our important mines, preventing their operation and cutting off our usual source of supply. The damage to the district because of the weather has been a serious matter.

It comes pretty straight that the Tennessee Company is contemplating the expenditure of \$1,000,000 in improvements of its plants. It is divided between coal

mines, furnace plants and the steel mill. On the latter the contemplated expenditure is estimated at \$600,000, and for the others \$200,000 each. These expenditures must be approved by the meeting of the stockholders, to be held shortly, before becoming effective.

The Fowler-Personnett Lumber Co. was incorporated during the past week and capitalized at \$30,000. The main office will be at North Birmingham. W. M. Fowler is president of the company; J. D. Case, vice-president, and G. M. Personnett, secretary-treasurer and general manager. J. M. K.

[Special Dispatch to Manufacturers' Record.]

Birmingham, Ala., February 21.

Iron market very firm at unchanged quotations. Round-lot sales today basis \$13.75 for No. 2 foundry, an advance of 25 cents over similar sales last week. One sale reported was 3000 tons. J. M. K.

THE BESSEMER DISASTER.**Fatal Explosion in the Virginia Coal Mines Near That City.**[Special Dispatch to Manufacturers' Record.]
Birmingham, Ala., February 21.

The most terrible calamity in the history of coal-mining in Alabama occurred in the Virginia mines near Bessemer on yesterday in the shooting down of coal just when the miners were preparing to leave the mine after their day's work and before their exit from it. One of the shoots made was, in mining parlance, a windy shoot, from which the flame ignited the gas and fine coal dust, causing a terrific and disastrous explosion that wrecked the mine and entombed the miners. The debris of the mine caused by the explosion choked tight all means of ingress to aid and all egress for escape. Over 100 miners were thus caught in a trap without any chance for escape from death.

Relief was attempted by reopening the mine, but it has been slow work to clear the wreck. Everybody so far recovered is mutilated and almost unrecognizable. There is no hope of finding anyone alive, and there can never be any certainty as to the absolute facts bearing on the cause of the catastrophe. It is the most terrible mine horror that ever happened in the South, with only conjecture to account for the cause. J. M. K.

Heavy Movement in Pig-Iron.

In its weekly review the Iron Age says: "There has been a very heavy movement in pig-iron in the Eastern markets. Steel-makers in the Philadelphia district have bought fully 75,000 tons of basic pig-iron at \$16 at furnace, deliveries in some cases to run well to the end of the year. Schuylkill valley furnaces have also sold fully 25,000 tons of foundry iron in lots running up to 3000 tons. In the New York market a leading pump interest has purchased about 5000 tons, and other melters have bought. A large electrical company has taken some round blocks of foundry iron, Buffalo doing the bulk of the business. That producing center has also sold to a group of malleable foundries fully 25,000 tons of malleable Bessemer. In the Pittsburgh district a large manufacturing concern has purchased 21,000 tons of foundry and forge iron, 8000 tons thereof from Southern makers on the basis of \$13.50 Birmingham, and 13,000 tons at about \$15.75 valley furnace. Other distributing centers report an increasing interest, and the market is very firm. It has not yet, however, shown any actual advance over recent figures. An interesting inquiry is for 21,000 tons of pig-iron for the castings of another tunnel under the Hudson river. It is understood that the United States Steel Corporation is again testing the market for additional supplies, the tonnage

needed being estimated at about 40,000 tons."

Benner's Prophecies.

Samuel Benner, the farmer-prophet of Dundas, Ohio, who has made some notable successes as a forecaster of business conditions, has issued his prophecies for 1905 under date of December 7 last. He introduces his forecast for 1905 as follows:

"I predict that prices for pig-iron will advance and be higher in 1905 than 1904.

"I predict that prices for railroad stocks and industrial securities will be higher in 1905 than 1904.

"I predict that there will be a revival in business, and that the volume of trade in 1905 will exceed that of 1904 many millions of dollars.

"I predict that there will be moderate good times for the next four years."

In his elaboration of the forecast he refers to pig-iron as a barometer of trade and says:

"The aggregate of crops for 1904 is simply enormous. Wheat, corn and oats combined amounts to nearly four thousand millions of bushels, and other grains and minor products fill the granaries with an abundance for every demand. The volume of money is sufficient for all legitimate requirements. We may look in any direction and find business conditions sound—east, west, north and south. The South has prospered as never before by its enormous profits on last year's cotton crop."

Kentucky-Tennessee Oil Field.

[Special Cor. Manufacturers' Record.]

Barbourville, Ky., February 20.

Results from field work recently show the oil fields of Kentucky up in a more favorable light. A number of excellent strikes have been made both in the upper and lower districts of the State, and while the runs have not been up to the standard, it has been impossible to pump regularly during the bad weather.

Results from the upper fields during the past few weeks have proven an extensive oil-producing territory through Wolfe and adjoining counties, and within the lines marked out by the drill considerable drilling is now being done. New York capitalists have organized a company to test 33,000 acres in Morgan county, adjoining Wolfe, and machinery is now being taken into that region.

Last week three good strikes were made in the deep sand of Wolfe county. Most of the work there is being done by Pennsylvania people. In the lower fields Wayne and Cumberland counties furnished seven new strikes last week, one Wayne county completion attracting especial attention, proving, as it does, an extension of considerable proportions.

The two grades of Kentucky-Tennessee oil are now selling at 80 and 53 cents, respectively. The 53-cent grade is the Standard's own production, which is obtained entirely from the Bath-Rowan division. There have been no changes in prices for several weeks.

W. S. HUDSON.

To Build Up Natchez.

[Special Cor. Manufacturers' Record.]

Natchez, Miss., February 16.

The Natchez Promotive League was organized January 5, and as a result of its initiation the board of aldermen of the city has provided for an exemption from taxation for 10 years of industries established before January 1, 1910. We want new industries here and in this vicinity. We want new people in this neighborhood. The Promotive League aims to bring them here. And in furtherance of that aim it will issue a pamphlet entitled "Natchez in a Nutshell," presenting tersely facts about the city and its vicinity of interest

to investors and homeseekers. The city, which is entered by three railroads, has two cotton mills, two cottonseed-oil mills, a sash and blind factory, an ice factory, a deliniter, a compress and a number of small enterprises. It has street-cars, artesian water, a sewerage system, a gas plant and an electric-light system. Referring to the advertisement given the city by the exemption ordinance of the board of aldermen, the Natchez Democrat says:

"That it was a necessary and important ordinance is demonstrated by the readiness with which the Manufacturers' Record has taken it up, and the hearty endorsement that is contained in the eight words—'a safe and sane method of encouraging manufacturing' in Natchez. The fact that this ordinance has been passed by the board of mayor and aldermen has been advertised to the four points of the compass. That advertisement has been supplemented by the Manufacturers' Record, the strongest and best industrial, railroad and financial newspaper in the world. It is circulated in every section of the United States and in all the foreign countries.

"Here we have a most complimentary notice of our city sent to all parts of the world. It is a notice which shows that Natchez is willing to make every concession to manufacturers that may be regarded as being within the pale of 'safe and sane methods.'"

FROZEN WATER PIPES.**Electricity Now Used in a Number of Cities to Thaw Them Out.**

One of the new uses of electricity—a utilization of this power which is of interest to every one—is for the thawing out of frozen water pipes. The application of electricity for this purpose has already been done in a number of cities, and has, it is stated, been found satisfactory and considerably cheaper as well as quicker than the old method of digging down to the pipes and then applying fire.

To thaw water pipes by electricity a special type of transformer is used, and the whole outfit weighs about 1200 pounds. The primary coil is connected to the electric wire from the power-house and the secondary coil is connected to the water pipe. Only a small voltage is applied at first, but it is increased gradually to a sufficient amount to thaw out the pipe, but to no greater degree. Pipes ranging from three-quarters of an inch to ten inches bore have been thawed out by this means, the smaller size in from eight to twenty minutes and larger sizes in from two to five hours. House service pipes may also be thawed out if special care be taken to make good connection with the electric wires to avoid burning faucets and pipes. The Public Service Corporation of New Jersey reports that it thawed out nearly 3000 services in various places, including Newark, Jersey City, Elizabeth, Hoboken and Trenton, at charges varying from \$4 to \$15 in each case. Each outfit, consisting of two men with equipment and horse and wagon, averaged from 10 to 200 pipes thawed per working day. It has been found possible to thaw out the pipes in a row of 14 small dwellings as easily as a smaller number, although requiring more time.

While the use of electricity in this manner has been adopted in a number of places, including, besides those mentioned, New York city, Elmira, Schenectady and Gloversville, also in New York State, Pittsburg and Altoona, Pa.; Durango, Col., and elsewhere, it has not been taken up in Baltimore, and with reference to its possible adoption here by the United Electric Light & Power Co. it has been stated that the winters here are not so severe as to demand its adoption. Nevertheless it is

possible that the process may in the future be given a trial. In the Northern cities mentioned it has been used for the thawing out of street mains where frozen pipes might in the case of fire have permitted a great conflagration.

KEEPING TAB ON ONESELF.

How Manufacturers May Know the State of Their Business.

More and more is being borne in upon manufacturers the necessity of a system that will enable them to criticize themselves or to have a comprehensive grip upon their business at any moment. Bearing upon this growing tendency is an article on the cost system written by Mr. A. H. Pogson of Pogson, Peloubet & Co., certified public accountants. He says:

"The prime object of a cost system is so to classify the figures representing the operations of the business that it can be easily determined whether or not all departments—purchasing, manufacturing and selling are being so conducted as to realize the best possible results at the lowest possible outlay. The installation of a cost system by a manufacturer has frequently disclosed the fact that an entire line of goods had for years prior been ignorantly sold at less than cost, this state of affairs being concealed by the fact that the business as a whole was profitable. Knowledge of the facts, of course, resulted in an immediate reform of methods or in dropping the line.

"It is in connection with the inauguration of new policies or processes that a cost system is particularly valuable. In their early stages such departures are experimental in their nature. The statistical information bearing thereon derivable from a well-conducted cost system will quickly reveal whether the new methods are sufficiently profitable to be made a permanent feature of the business or whether they should be abandoned.

"I have in times past come in contact with manufacturers who recognized the value of cost accounting to the extent of using more or less rudimentary cost systems usually compiled by the superintendent and made up without reference to the expenditure as recorded in the general books. The great danger in utilizing such figures lies in the fact that all the elements making up the cost of the product may not be included, with the effect that the results shown may be misleading in the highest degree, and thus occasion serious losses. Unreliable figures are worse than none. Generally speaking, a trustworthy cost system should absorb in one way or another all expenditure, other than capital expenditure, shown on the financial books. Incidentally depreciation on buildings, machinery and tools, items quite frequently overlooked but as much a part of the cost of goods as repairs, for instance, should be included. The expenditure and revenue should appear on the financial books of the concern under representative heads, the classification and degree of subdivision varying with different businesses. The items included in the accounts on the financial books are then distributed on the subsidiary cost records, the expenditure so distributed, of course, balancing with the financial books, thus making certain that all items which go to make up cost are included. This method has been found to be far more accurate and satisfactory than the reverse process, that is, the distribution of the items in the cost records to be afterward gathered together and entered upon the financial books. In devising systems for both the financial and cost books such rulings, blanks and forms should be used as will reduce the clerical work to a minimum.

"The system should provide for statements to be rendered to the management

monthly, weekly, daily, or as required. These statements should tell the whole story of the business and at a glance should reveal whether or not all is well. Should any item call for special investigation, the system of filing should be such that all documents bearing on the case in point will be quickly accessible, thus permitting the fullest investigation in the shortest time.

"A manufacturer, to achieve the highest success, must be a remorseless critic of his own methods and of the methods of his subordinates. A cost system will go far toward enabling him to decide and act with intelligence. Every saving of \$1000 per year in the cost of producing, handling or selling goods means a dividend of 5 per cent. on \$20,000 of capital stock. The expenditure for installing a cost system is incurred but once; the benefits are continuous. The outlay should not be considered an expense; it is an investment."

By-Products From Sugar Factories.

United States Consul Thornwell Haynes at Rouen, France, reports:

"Two of the by-products of sugar factories are utilized in France—the pulp from the presses and the drained treacle, or the molasses from which no more sugar can be obtained by the ordinary processes of crystallization. The pulp serves as food for animals, and is sold to farmers at six francs (\$1.16) for 1000 kilograms (2204.62 pounds), or about five cents per 100 pounds. It is preserved in silos, being mixed with beet-root leaves. The drained treacle is sold to distillers or to foreign 'sucreries,' which are operated for the purpose of extracting the small amount of sugar remaining. In France there are two of these 'sucreries.' The French fiscal system is such that it is more to the sugar-maker's interest to sell the drained treacle to the distiller than to submit it to the osmose, lime, baryta or strontian process, all of which flourish in Germany. This treacle can be employed in very limited quantities in industry, such as the manufacture of wax, dyeing preparations, molds for castings, ordinary bonbons, gingerbread, etc. Sugar factories produce abundant quantities of residuary water, which the government obliges the proprietors to purify. This purification, when done intelligently, is effected most economically by the Gaillet and Huet process, which yields lime sediments for phosphate. The process as employed at the central sugar factory of Flavy-le-Martel is as follows: A large cask is filled with a solution of chloride of lime, which, by a regulated opening or spigot, is allowed to run into a basin containing the water to be purified. The mixture is allowed to run for some distance, when whitewash is allowed to drop into it regularly from a mixer. By this method lime sediments extremely rich in phosphate elements are obtained. In the manufacture of sugar from cane in the French colonies there is a by-product called 'bagasse.' This fiber, analogous to that of wood, is employed as a combustible in heating the generators of the factory, as well as for steam development when necessary. It is first dried, a process which in wet weather could become very costly, but there are special furnaces for the drying of the green pulp as soon as it comes from the mill."

A \$500,000 Oil Refinery.

At a meeting of the representatives of 76 independent cotton-oil mills of Mississippi, held in Jackson on February 14, the decision was reached to organize a permanent association to be called the Mississippi Seed Crushers' Association. W. H. Maddon of Yazoo City, J. P. Perry of Grenada, F. P. Fox of Vicksburg, Phil.

A. Rush of Senatobia, G. W. Covington of Hazlehurst, K. C. Hall of Laurel and F. A. Porter of Jackson were named as a committee on constitution and by-laws. It is the intention of the organization to apply for a charter with a capitalization of \$500,000 and erect a cottonseed-oil refinery and by-product plant. The question of insurance rates on oil-mill risks was also discussed at the meeting.

Literary Notes.

Cyclopedia of Applied Electricity. Five volumes. Published by the American School of Correspondence at the Armour Institute of Technology, Chicago. Price \$30.

This work, which in its five volumes, comprising about 2500 pages, with more than 3000 illustrations, has been designed to meet the demand by electricians, engineers, telephone and telegraph operators and all others interested in the practical application of electricity for a reliable, practical, up-to-date reference work on the power whose use is extending to every branch of human effort, is the most comprehensive work in its field that has yet been published. It is addressed particularly to students and to the increasing thousands of practical workers whose technical knowledge is limited. For that reason higher mathematics have been avoided and simple language, in connection with a large number of diagrams prepared especially for the test, is used in explanation of the subject-matter, which is divided into chapters or sections, with a view to using the work as a text-book, and closely related subjects are brought together under a number of general headings.

Volume I, after dealing with the elements of electricity and magnetism and explaining the fundamental laws of electricity, is devoted to electrical measurements, electric wiring and the installation of electrical machinery and the electric telegraph. Volume II deals with dynamo electric machinery, storage batteries and electric motors; Volume III, with electric lighting, electric railways, the operation of dynamo electric machinery and the general principles of power-station design; Volume IV, with alternating currents and automatic current machinery, and Volume V, with the telephone. This last volume especially containing a great deal of material which has never before been published in book form, while primarily intended for those who have little electrical foundation, is full of information, making it valuable for the engineer in his reference library.

The Cyclopedia has been compiled from the instruction papers of the American School of Correspondence, which are now used by the United States government, the Westinghouse Company, Columbia University and others, and the different sections have been prepared by acknowledged authorities, especially for the everyday needs of the man in the shop. Among the special writers are Prof. F. B. Crocker of Columbia University, past president of the American Institute of Electrical Engineers, who illustrates with original drawings and practical examples the installation, assembling, operation and care of dynamos and motors; Prof. D. C. Jackson and Prof. George C. Shad of the University of Wisconsin, and J. R. Cravath, Western editor of the Street Railway Journal, upon such topics as high-tension transmission, central-station work, third-rail and multiple-unit systems, alternating-current motors, etc., of particular interest to street-railway men; Charles Thom, chief of the quadruplex department of the Western Union Telegraph Co., who covers authoritatively polar duplex, quadruplex and phonoplex, the dynamo in telegraphy, storage batteries, repeaters, in-

termediate switchboards and commercial and railroad office practice, together with an explanation of wireless telegraphy; William C. Boyrer, on city and rural telephony; Prof. Lewis Derr of the Massachusetts Institute of Technology, Prof. William Esty of Lehigh University and many other authorities who have prepared special articles and have collaborated in the production of this standard work.

The usefulness of the Cyclopedia as a reference book is augmented by the addition of a subject index contained in the Volume V. The practical value of the work as a whole can hardly be questioned, as the Cyclopedia embodies the various electrical courses which have been successfully used by the American School of Correspondence in teaching thousands of electricians. The work is, in fact, the outcome of a most successful method for the education of the busy man. It will be found of the greatest value to designers, constructors and operators of electrical machinery, and as it is the only text-book and reference work covering every department of electricity thoroughly, its use will save many valuable hours of search among scattered text-books on electricity.

Cottonseed Products. A manual of the treatment of cottonseed for its products and their utilization in the arts. By Leebert Lloyd Lamborn. Publisher, D. Van Nostrand Company, New York. Price \$3 net.

With introductory chapters treating of the cotton plant and the handling of the staple, and reviewing historically and statistically the cottonseed industry which since 1867 has developed from four mills to more than 600, this volume treats of the preliminary handling of cottonseed, of cottonseed oil, cake and meal, the utilization of the oil for edible purposes, and of its subproducts in the manufacture of soap and soap powder and the use of cottonseed meal and hulls for cattle food and fertilizer. It presents, moreover, the rules of transaction in cottonseed products. The purpose of the book, so well met, is to supply a demand for a treatise which should deal not only with the extraction of the oil from the seed, but with the utilization of the products in the production of goods essential to human sustenance and comfort. The text is illuminated with illustrations of the machinery of the industry and of the cotton plant, and with a large map showing the cotton area and trade of the world. It is a volume appealing to the technical student, the man engaged in the fat and oil industries, and the cottonseed miller.

Working for Independence.

[Special Cor. Manufacturers' Record.] Independence, Kan., February 17.

The Business Men's League of Independence, Kan., has been organized with 200 members, and with Messrs. J. M. Parker, president; T. E. Wright, vice-president; J. B. Swan, treasurer, and Harry W. Jones, secretary, to work in all ways for the development of the city until it shall have at least a population of 25,000.

The city is in one of the richest agricultural sections of Kansas, and is in the center of the great oil and gas belt of this State and the two Territories. Owing to this fact it has assumed commercial importance, and the outlook for the city is very promising. With 1,000,000,000 cubic feet of gas per day, the business men of this city are determined that the city shall be a second Pittsburg. The city is blessed with many other natural resources besides natural gas, as it has the finest cement rock in the country, large quantities of brick shale and glass sand, and is also close to the timber regions of Arkansas, and just across the State line from the great mines of Missouri.

ALABAMA'S IRON AND COAL INTERESTS.

Consolidation of These Great Industrial Resources Apparently at Hand.

[Special Dispatch to Manufacturers' Record.]

New York, February 22.

It looks tonight as though the efforts which have for many years been made to consolidate the leading coal and iron interests of Alabama are to culminate in the organization of a great company, second only in importance to that of the United States Steel Corporation. The importance of bringing into harmonious operation the various companies interested in the coal, iron and steel in Alabama has long been appreciated. It has been conceded that never until this was brought about would it be possible to secure the very best results in economic production, and not until then would the district command the great amount of capital which could be wisely used in its rapid development. The possibilities of the Alabama district are so well known to the world that it is almost a waste of time to tell the readers of the Manufacturers' Record that that region holds more available ore than the United States Steel Corporation and the Great Northern Railroad combined own; that it has such limitless supplies of coal as to make unnecessary detailed statements of the hundreds of millions of tons available for steam and coke-making purposes; but with all these vast resources for making pig-iron, as Alabama is able to do, at a lower cost than any other region, and great as the progress has already been, it is still true that the marvelous development in that State is in its infancy.

With the foundation of raw materials which Alabama possesses there is room for expansion to the point where the coal, iron and steel output of Alabama would exceed that of Pennsylvania; in fact, the time may come when the region centering around Alabama will produce as much pig-iron and steel as the United States now produces, for with the doubling of the iron production every 10 years, thus practically assuring an output of 35,000,000 to 40,000,000 tons 10 years hence, the raw-material resources of the country will be taxed to meet the demand, and Alabama, now making as much pig-iron as Pennsylvania did 25 years ago, should, with the great increase in population, advance within the next 15 years at least as rapidly as Pennsylvania has developed during the last 25.

Such is a possibility, staggering as it looks when we consider the enormous iron and steel interests of the Pittsburgh district, producing, as Pennsylvania is now doing, nearly 9,000,000 tons of pig-iron a year, yet such a growth is within the range of possibilities. Certainly it is much easier to conceive that this may come true than it would have been 25 years ago, when Pennsylvania was producing a little over 1,500,000 tons, to forecast a growth within 25 years which would give that State 9,000,000 tons at present. However, such a development means an investment of capital commensurate with the larger resources of the district, and likewise with the insatiable hunger of the world for iron and steel, but it has seemed impossible to secure capital in sufficient volume to bring this about and to insure stability of prices and a fair margin of profit without concentrating into one great enterprise many if not all of the larger coal and iron companies in Alabama.

After many months of negotiation it looks as though this is about to be accomplished. It is true that statements have been put forth to the effect that one of the leading companies, the Tennessee Coal & Iron, would not be embraced in such a

deal, but reports often prove deceptive. The Tennessee Coal & Iron directors, with what some consider unseemly haste, put out on Tuesday last an official denial that there were any negotiations going on; that they have the control of that company. It was then concluded that these directors were no longer the people to be reckoned with in the pending negotiations, and the street concluded that the syndicate having the matter of consolidation in charge had dealt with the stockholders, and not with the directors, by securing a controlling interest in the stock in the market. At least, the indifference with which the syndicate seemed to regard the statement of the Tennessee directors, coupled with the fact that the entire capital stock has been turned over twice within the last 10 days, would seem to indicate that the control of the Tennessee had already passed from the directors before they realized it.

Commenting on the manifesto of the Tennessee directors, the Evening Telegram of today says:

"They (the directors) are, however, not disturbed. They have a card up their sleeves for the supposed buyers, of whom John W. Gates and John H. Hoadley are the most active. In the event of a majority of the stock being held by the supposed new interests, the present management pointed out that the board of directors is classified, and that no one will be able to acquire control of the board until the lapse of two or three years."

If it be true that the directors of the Tennessee made such a threat, which in effect would mean that no matter who may own the company, they would refuse to get out, then they have placed themselves in a position which even the ethics of Wall Street, under these circumstances, would not for a moment countenance. The trend of public sentiment would, it is quite certain, compel a change of heart, but it is not at all probable that such a method as this would prevent the consolidation of the Tennessee with the other interests if it should prove that Gates and Hoadley and their associates have an absolute control of the Tennessee Company. Leading financial houses are deeply interested in the success of the efforts which are being made, recognizing that this movement is of far-reaching importance, and that its consummation would inaugurate a period of prosperity in the South, with its reflex action on the prosperity of the whole country, such as the South has never before enjoyed.

It is understood that in addition to the money required to purchase the properties under consideration, that \$30,000,000 to \$40,000,000 of additional money would be provided for working capital and for the complete modernizing of the iron and steel works of the district and the completing of new furnaces and new steel works.

It is not expected that there will be any undue haste in constructing new works until every detail of the situation has been carefully worked out in order to secure the best results. For many years the Alabama district has suffered from the unwise speculative manipulations in Wall Street of its leading iron company. It has at times looked to the public as though that company had been used more for speculation than for the legitimate development on a broad basis of its iron and steel interests commensurate with its great resources of ore and coal. This condition has long retarded the best development of the district, and it is to be hoped

that out of this effort to bring about a consolidation there will come, as seems certain, a determination to develop to the utmost limit the wealth-creating possibilities of Alabama by the development of its coal mines and the increased production of iron and steel rather than by purely speculative manipulations in Wall Street. There are many details yet to be worked out. The whole plan may suddenly be put into shape and completed in short order, and there may be weeks of hard work to eliminate difficulties, seen and unseen, before the well-rounded plan as now in view can be completed, but when completed not only will Alabama start forward with a great burst of activity, but Alabama will set a pace for the whole South, and following the movement of capital into the coal and iron and steel interests of the central South there will be a great flow of people and population to the entire South.

It may be seriously questioned whether even the directors of the Tennessee Company would oppose a consolidation when the plans have been worked out, for it is to be assumed that as business men they realize the purpose for which they were elected directors, namely, to take care of the property and secure a competent management, so as to obtain the best possible results for the stockholders. It therefore cannot be conceived that men of this kind would question the right of anyone to go in the market and buy the stock of this company to any extent that he might be able, and it is a well-recognized fact that in all corporate concerns a majority is recognized as having the right to control. The movement looking to this consolidation has created widespread interest not only in this country, but abroad, and has concentrated public attention upon the possibilities of the South. Whether the movement results in an immediate organization controlling nearly all of the important companies, or whether its final consummation is delayed for a few weeks, the result must inevitably be the bringing together sooner or later into one great company of the leading interests in the State, backed with capital sufficient for the development of the whole district on the broadest lines. Mr. Joseph H. Hoadley, president of the International Power Co., which owns a control of the Alabama Consolidated Coal & Iron Co., is representing the banking interests in this movement.

Governor N. B. Broward of Florida, with other State officials, has completed a trip along the canals of the east coast of Florida and into the everglades, and in his first message to the legislature he will discuss plans for a system of internal improvements, including the drainage of swamp and overflowed lands of the State.

The Greensboro (N. C.) Chamber of Commerce has been organized with Messrs. Caesar Cone, president; Charles D. McIver and O. C. Wysong, vice-presidents; P. D. Gold, Jr., treasurer, and G. H. Miles, secretary.

President W. S. McNeal of the Manufacturers' Association of Houston, Texas, will make a special campaign this year for the establishment of small industries in that city.

A contract for picks, shovels and other excavating tools for the Panama canal has been awarded to the Belknap Hardware & Manufacturing Co. of Louisville, Ky.

At Richmond, Va., last year 329 buildings, valued at \$1,470,051, were completed.

During January the Alabama Car Service Association handled 59,288 cars.

Steady progress is being made in grade-raising work at Galveston.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

NORTHERN CENTRAL

Annual Report Shows Gratifying Gains in Net Earnings and Income.

The fiftieth annual report of the Northern Central Railway Co., which covers the year ended December 31, 1904, shows gross earnings \$10,288,203, decrease as compared with 1903, \$21,882; operating expenses \$7,829,253, decrease \$144,624; net earnings from operation \$2,458,950, increase \$122,742; net earnings after the payment of rentals \$2,306,833, increase \$99,787; gross income \$3,006,203, increase \$29,653; net income after the payment of fixed rentals, interest, taxes, etc., \$2,077,131, increase \$230,037. Out of this were paid two dividends of 4 per cent. each, amounting to a total of \$1,156,450, and there was also paid on account of principal of car trusts \$10,226. The amount to credit of profit and loss is now \$3,506,776, an increase of \$158,299. The gross earnings from operation were composed as follows: From freight traffic, \$7,994,923; from passenger traffic, \$1,734,372; express, \$210,510; mails, \$110,960; miscellaneous, \$123,757; rents, \$113,679. The capital stock of the company is \$17,193,350, an increase of \$5,731,100.

There was spent for betterments during the year a large amount of money, including the following: Improvement from York Haven to Bridgeport, Pa., four tracks, including right of way, \$426,849; Fairview yard, including building and facilities, \$884,316; Fairview to Marysville, new line, and changes in Marysville yard, \$72,381; terminal facilities in Baltimore, including additional tracks, \$122,991. Smaller sums were expended at York, Millersburg and Sunbury, making a total of \$1,558,375. The report is signed by President A. J. Cassatt.

NASHVILLE & HUNTSVILLE.

Proposed Interurban Electric Railway Incorporated in Tennessee.

Mr. J. H. Connor, president and general manager of the proposed Nashville & Huntsville Railway, 19 Steger Building, Nashville, Tenn., writes the Manufacturers' Record that he has secured charter for the road under the general railroad laws of Tennessee with all the powers of a steam road, including the right of eminent domain. The proposed line is from Nashville to Murfreesboro, the county-seat of Rutherford county; thence to Shelbyville and Fayetteville, respectively, the county-seats of Bedford and Lincoln counties, and from there to Huntsville, Madison county, Alabama. The road can be extended from Huntsville to Pensacola, Fla.

Mr. Connor adds that the route will be through one of the richest parts of Tennessee, and in a region where people are demanding an electric interurban railway. The line will be located as soon as the weather permits. It will be about 107 miles long.

Directors have been elected as follows: J. H. Connor, president and general manager; Chas. L. Ridley, Sr., vice-president; W. H. Frickling, secretary; L. J. Shorter, treasurer, and J. H. McMillin.

"ORIENT" ORDERS ENGINES.

Contracts for Cars Also to Be Let Soon—Progress of Construction.

The Kansas City, Mexico & Orient Railway, according to a dispatch from Kansas City, has awarded contracts for \$1,000,000 worth of locomotives to be delivered by January 1 next. It is said that the company expects to be hauling cattle

from Texas and Oklahoma points to Kansas City by next fall, using the Missouri Pacific Railway from Osage City, Kan. At present the company has 128 miles of line in operation from Wichita, Kan., to Fairview, Okla., and track construction is now under way northward from Sweetwater, Texas, to Fairview. All but 19 miles of the 300 miles between Sweetwater and Fairview are said to be graded and ready for track.

M. V. Watson, a vice-president of the company, is quoted as confirming the report that the contract for locomotives has been awarded, and he is also reported as saying that the company has an equipment fund of \$2,500,000 paid in, and that passenger and freight cars will soon be ordered.

On the company's line in Mexico construction is also in progress.

RAILROAD DEAL.

Trinity & Brazos Valley Reported Purchased by B. F. Yoakum's Gulf Coast Road.

A report from Houston, Texas, quotes Mr. Jeff N. Miller, vice-president and general manager of the St. Louis, Brownsville & Mexico Railway, of which B. F. Yoakum is president, as saying that that company has purchased the Trinity & Brazos Valley Railway, which extends from Cleburne, Texas, to Mexia, Texas, and that the plans to extend the line from Mexia to Houston and also from Cleburne to Fort Worth will be carried out.

The Trinity & Brazos Valley line was built in 1903 by J. H. B. House, president, San Antonio, Texas; R. H. Baker, vice-president and general manager, Austin, Texas, and others. It is 78 miles long, and the proposed extension to Houston would require the construction of about 150 miles additional, while an extension from Cleburne to Fort Worth would be about 30 miles long, connection being made at the latter place with the Fort Worth & Denver City Railway.

Atlantic & North Carolina.

The Atlantic & North Carolina Railroad has issued a folder descriptive of the country through which it runs. This folder is well printed and illustrated with halftones. An inset is devoted to photographic illustrations taken at Beaufort and Morehead City. The reading matter includes much information, with considerable detail, concerning the value of the country for truck-farming, as well as for tobacco and cotton culture, cattle-raising and dairy farming. Nor are the lumber interests neglected. Attention is also called to the excellent locations offered for factories of various kinds. The fishing industry is likewise described, and the attractions presented to sportsmen there come in for attention. The Atlantic & North Carolina Railroad is now operated by the Howland Improvement Co., lessee, R. S. Howland of Asheville, N. C., being president.

Durham to Chapel Hill.

Concerning the press report that it is proposed to build an electric railway from Durham to Chapel Hill, N. C., Mr. R. H. Wright writes from Durham to the Manufacturers' Record that as yet it is by no means certain that such a line will be constructed. There are several obstacles to be removed before building can be definitely determined upon. The line would be about 12 miles long, and would give Chapel Hill connection with the various railways centering at Durham. One of the conditions upon which construction depends is the abandonment of the present steam road connecting Chapel Hill with University Station, and until the question of disuse of this line is definitely settled in the affirmative no steps will be taken.

It is believed that an electric line would not only prove satisfactory, but profitable.

To Buy New Equipment.

The West Virginia Central Railway will, it is reported, soon be in the market for considerable new equipment, including 17 locomotives and about 1000 freight cars. It is probable that the Western Maryland Railroad, the principal officers of which are the same as the West Virginia Central, will likewise buy a large number of engines and cars this spring.

It is also reported that the Western Maryland is preparing to improve its line east of the Blue Ridge by strengthening bridges, trestles, etc., so that the more powerful engines which it employs in the Cumberland valley service may be used to haul its coal trains all the way eastward. At present the lighter class of consolidation engines are used for this work, and their hauling capacity is small compared with the newer type of locomotives.

Buffalo & Susquehanna.

The Buffalo & Susquehanna Railroad Co. has recently made a trackage agreement with the Buffalo, Rochester & Pittsburgh Railway, whereby it will use the latter company's tracks between Stanley and Juneau, a distance of about 15 miles. This agreement will give the Buffalo & Susquehanna Railroad Co. immediate access to its coal properties at Sykesville, Big Run and Troutville, where it is said upwards of 30,000,000 tons await shipping facilities. It is stated that below Juneau the Buffalo & Susquehanna interests will construct their own road through to Plumville, where a tract containing about 55,000,000 tons of coal is owned. Arrangements have been made to finance this extension and to provide funds for the immediate development of the coal properties above mentioned.

Marion to Johnson City.

A press report from Chattanooga, Tenn., quotes Mr. John K. St. John, a civil engineer of Irwin, Tenn., as saying that the Southern Railway's proposed line, for which a survey is being made between Marion, N. C., and Johnson City, Tenn., will cross the Blue Ridge through McKinney's gap, more than 4000 feet above tide, and that it will open a fine mineral and timber region, the latter including hardwood and the mineral comprising not only iron, but marble, mica and other stone, and perhaps coal. The routes, it is said, will be from Marion to Spruce Pine, from which point to Johnson City the survey will parallel the South & Western Railway. Some options for right of way have been secured between Marion and Spruce Pine.

Street Railway for Ardmore.

Mr. D. B. Lester, vice-president of the Commonwealth Land & Trust Co., Ardmore, I. T., writes the Manufacturers' Record that a franchise has just been granted to D. B. Lester, Richard M. Lester, C. M. Joiner and John W. Hoffman by the city council of Ardmore, giving them the right to use the principal streets for street-railway purposes. The grant is for 50 years, and exempts the proposed road from taxation for a period of three years from the date of its completion.

Messrs. Joiner, Hoffman and R. M. Lester are, respectively, president, treasurer and secretary of the trust company.

Frankfort to Versailles.

Mr. James M. Pickrell, general manager, writes from Winchester, Ky., to the Manufacturers' Record that all the property of the Frankfort & Versailles Traction Co. of Frankfort, Ky., has been purchased by him and associates at Frankfort. He further says: "We will at once begin extensive improvements on our street rail-

way, and will build an electric line to Versailles, a distance of 15 miles. We will be compelled to build a bridge across the Kentucky river at a point about one and one-half miles above Frankfort. We are in the market for contracts to build this road and bridge."

W. L. Mapother, Vice-President.

Mr. W. L. Mapother, Jr., has been elected first vice-president of the Louisville & Nashville Railroad. He has been filling that position, however, since last fall, when Mr. W. D. Hines retired. Mr. Mapother is a young man. About 15 years ago, when a youth, he entered the service of the company, taking a place in the secretary's office, but he was rapidly promoted. He became a clerk in the president's office, and finally was chief clerk there. Two years ago he was appointed assistant to the president, and from that post he has been promoted to the vice-presidency.

Knoxville, Lafollette & Jellico.

A report from Knoxville, Tenn., says it is possible that the Knoxville, Lafollette & Jellico Railroad (Louisville & Nashville system) may be in operation for through trains by March 15. The line has been practically completed for some time with the exception of the Dossett tunnel, which may now, it is said, be finished by March 1. In addition to the difficult tunneling, the approach at one end of the bore has also given considerable trouble on account of landslides, which have been rendered frequent by the weather.

Nevada to Springfield.

Mr. Thomas P. McDonough, president of the proposed Kansas City, Nevada & Springfield Railroad, 211 Tacoma Building, Chicago, Ill., writes the Manufacturers' Record that the projected line is from Nevada, Mo., to Springfield, Mo., and surveys for the permanent location will be made as soon as weather permits. The line will run through the counties of Vernon, Cedar, Dade and Greene, and connections will be made with the Missouri Pacific Railway at Nevada and with the Frisco system at Springfield.

Farmville & Powhatan to Be Sold.

A decree has been entered by the court at Richmond, Va., for the sale of the Farmville & Powhatan Railroad, a narrow-gauge line, 89 miles long, extending from Farmville, Va., to Bermuda Hundred, Va. The date of sale is to be hereafter fixed. T. M. R. Talcott is receiver. There have been reports recently that this road, which is an east and west line, might be purchased by either one of several companies projecting the building of lines from the West Virginia coal fields to the Chesapeake bay.

ROCK ISLAND TERMINALS.

Docks, Piers, Warehouses, Elevators, etc., to Be Built at Galveston.

An advertisement published at Galveston, Texas, gives notice that application will be made to the legislature by M. A. Low for approval of a city ordinance conveying authority to build terminals for the Chicago, Rock Island & Gulf Railway on the harbor line between blocks 710 and 716. The improvements are to consist of piers, docks, warehouses, depots, elevators and tracks to be used in export business.

St. Louis to Bismarck.

The Big River Construction Co., A. T. Smith of St. Louis, president, has applied for a franchise to build a railroad from South St. Louis, crossing the Meramec river at Fenton, Mo. The reported purpose is to reach Bismarck, Mo., about 100 miles south of St. Louis. It is reported

that rights of way have been secured and that the project is backed by Boston capitalists. The line is said to be designed for hauling coal to St. Louis, the mines furnishing the fuel being situated in Illinois.

Memphis to Pensacola.

The Memphis & Pensacola Air Line Railway has applied for incorporation in Mississippi, the principal incorporators being H. J. Forsdick, president of the Memphis (Tenn.) Commercial Club, and J. W. Buchanan, attorney at Memphis for the St. Louis & San Francisco Railroad. The line is to run from Memphis via Water Valley and Meridian, Miss., to Pensacola. The distance from Memphis to Pensacola is about 400 miles.

Busy Building Engines.

According to a report from Richmond, Va., the American Locomotive Co.'s branch in that city has orders on hand for 130 locomotives to be delivered by July. There are now 1400 men employed in the works, and it is reported that from 500 to 600 more will be gradually taken on. In addition to locomotives, the works are also building 12 steam shovels.

Thebes Bridge Nearly Finished.

The new bridge across the Mississippi river between Thebes, Ill., and Gray's Point, Mo., is reported to be near completion. Men are now at work on the last span, and as soon as the weather moderates the work can be pushed forward with rapidity. The St. Louis Southwestern and other companies are building this bridge.

Milville to Simmsport.

The Texas & Pacific Railway Co., according to information sent by an official to the Manufacturers' Record, may build a line from Milville to Simmsport, La., along the right bank of the Atchafalaya river, a distance of about 22 miles. It is expected to start a survey about April 1.

To Build Shops.

A dispatch from Hattiesburg, Miss., says that the Mississippi Central Railroad, together with the Newman Lumber Co., has decided to erect there a large car-building plant and shops, and furthermore, that it is expected to have the works ready for business next summer.

To Buy More Cars.

The United Railways & Electric Co. of Baltimore will, it is reported, soon give an order for more cars. Its last contract was for 150 winter cars, which were delivered last fall. The building of a station at the Druid Hill Park terminal is also under consideration.

Railroad Notes.

The Texas & Pacific Railway is reported to have in contemplation the building of a new passenger station in New Orleans.

An unconfirmed report from Muskogee, I. T., says that the Frisco system has purchased the Muskogee Union Railway, owned by William Kenefick of Kansas City and others.

The appointment of Mr. W. J. Harahan as fourth vice-president of the Illinois Central Railroad is reported in a dispatch from Chicago. He will have charge of operating. The appointment of I. G. Rawn as general manager is also announced.

It is expected that a large portion of 30,000 tons of coal intended for the United States government in the Philippines will be carried from Baltimore.

Birmingham, Ala., has canceled \$45,000 of public improvement bonds.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Sweetwater Hosiery Mills.

The Sweetwater Hosiery Mills of Sweetwater, Tenn., was referred to last week as amending its charter for the purpose of increasing capital stock from \$35,000 to \$50,000. The company is investing the additional capital in the purchase of new machinery, including 35 knitting machines, 10 ribbers and 10 loopers. This equipment will all be in operation by April 1 in the present building. Contracts for the machinery have been awarded.

Textile Notes.

Messrs. Edward J. Tanner and K. L. Tanner of McKinney, Texas, will establish a woolen mill.

It is reported that Frederick A. Brayton of Nyack, N. Y., will establish a knitting mill in Norfolk, Va.

Messrs. Trigg & White of Bristol, Tenn., are corresponding with capitalists who are seeking site in the South for the establishment of an extensive cotton-manufacturing plant.

The directors of the Grantville Hosiery Mills of Grantville, Ga., have decided to manufacture the yarns used in their hosiery mill, and will expend about \$75,000 for that purpose.

J. L. O. King and associates of Seneca, S. C., are organizing a company to establish a knitting mill, and Mr. King is prepared to correspond with makers of knitting machinery regarding the cost of equipment.

T. C. Pool, representing himself and associates, has purchased the Newberry Knitting Mills at Newberry, S. C., his bid being \$15,000. The plant contains 75 knitting machines, etc., for making half-hose.

The Lakeview Manufacturing Co. of Fayetteville, N. C., has completed improvements which have been in progress at its mill of 5000 spindles. The Lowell Machine Shop of Lowell, Mass., furnished the new machinery.

The Itasca (Texas) Cotton Manufacturing Co. has begun the erection of 25 cottages to accommodate operatives engaged for the mill's night run. Three warp frames are being installed in the mill. The equipment is 5556 spindles and 200 looms.

The Bowen-Jewell Company of Jewell, Ga., has purchased the Ruohs Cotton Mill at Chattanooga, Tenn., and will equip it with modern machinery for manufacturing all kinds of cotton and jute bags. The cloth used will be obtained from the company's mill at Jewell.

The Acworth (Ga.) Cotton Manufacturing Co., reported incorporated last week with capital stock of \$50,000, has elected a temporary board of directors as follows: Messrs. Orlando Awtrey, president; J. L. Lemon, vice-president; J. J. Northcutt, secretary; A. P. McLain, B. Rainey, J. W. McMillan, T. J. Lunsford and E. W. Lemon.

Plans for organizing the cotton mill proposed at Iva, S. C., referred to last week, have not been fully formulated. When arrangements have been completed the capital stock will probably be \$250,000, for the purpose of building a mill to have 10,000 spindles and 300 looms. D. P. McBrayer of Anderson, S. C., is interested, as was stated.

Last week the Palmetto Cotton Mills of Palmetto, Ga., was reported as having decided upon an expenditure of \$20,000 for the erection of a 75x100-foot addition and the installation of new machinery.

The company, it may be further stated, has awarded contracts for all the new machinery. There will be added 80 looms, with slashers, spoolers and warpers.

QUOTATIONS OF COTTON YARNS.

By Paulson, Linkroom & Co., New York, Philadelphia and Chicago.
February 14.
February 21.

No. 10s-1 and 12s-1 warps.....	14 1/2 @—
No. 14s-1 warps.....	15 @—
No. 16s-1 warps.....	15 1/2 @—
No. 20s-1 warps.....	16 @—
No. 22s-1 warps.....	16 1/2 @—
No. 26s-1 warps.....	17 @—
No. 6s to 10s yarn.....	14 @—
No. 12s-1.....	14 1/2 @—
No. 14s-1.....	15 @—
No. 16s-1.....	15 1/2 @—
No. 20s-1.....	16 @—
No. 22s-1.....	16 1/2 @—
No. 26s-1.....	17 @—
No. 8s-2 ply soft yarn.....	14 1/2 @ 15
No. 10s-2 ply soft yarn.....	15 @ 15 1/2
No. 8s-2 ply hard.....	14 1/2 @—
No. 10s-2 ply hard.....	14 1/2 @ 15
No. 12s-2 ply.....	15 @—
No. 14s-2 ply.....	15 1/2 @—
No. 16s-2 ply.....	16 @—
No. 20s-2 ply.....	16 1/2 @—
No. 24s-2 ply.....	17 @ 17 1/2
No. 26s-2 ply.....	17 1/2 @ 18
No. 30s-2 ply yarn.....	18 @—
No. 40s-2 ply.....	23 @—
No. 8s-3, 4 and 5 ply.....	14 1/2 @—
No. 20s-2 ply chain warps.....	16 1/2 @—
No. 24s-2 ply chain warps.....	17 1/2 @—
No. 26s-2 ply chain warps.....	18 @—
No. 30s-2 ply chain warps.....	19 @—
No. 16s-3 ply.....	16 @—
No. 20s-3 ply.....	16 1/2 @—
No. 26s-3 ply.....	17 1/2 @ 18

Shipments to Africa.

The Manufacturers' Record has a letter from a South African correspondent who, discussing trade relations between America and South Africa, writes:

"A very serious drawback in getting orders here is the fact that goods lie in New York for weeks after being shipped promptly by the manufacturer, waiting for the sailing of some irregular vessel which is itself waiting for a full cargo. For instance, I had several cases of machinery tied up in New York for 43 days, notwithstanding several vessels sailed in the meantime for South Africa. With a regular mail line we could order goods forwarded with reasonable certainty that they will come forward promptly. In the case referred to the customer in question could not start his works without the machinery. The machines had been ordered by cable and paid for in full, and were sent to New York and buried for 43 days because there was no regular line to which the shipment could be consigned. The result was that this customer said 'no more American machinery for me. I will buy where I know my goods will come forward.'"

Goods for Guatemala.

Jesus T. Contreras of Amatitlan, Guatemala, writes to the Manufacturers' Record that he desires to receive catalogues in Spanish from American manufacturers of hats, shoes, leather, liquors, flour, sweetmeats, salmon, sardines, cassimere, notions and novelties, perfumery, paints, dyes, talow, seeds, photographers' outfits, optical goods, furniture, carpets, barbers' supplies, phonographs and music boxes, watches and jewelry, gold pens and pencils, electric batteries, automobiles, caned chairs, soaps, hardware, varnish, cements, drawing instruments and lanterns.

I. E. Koffman of Odessa, Russia, writes to the Manufacturers' Record that he desires to be a general agent in Russia on a commission basis of American manufacturers of medical and dental supplies and appliances.

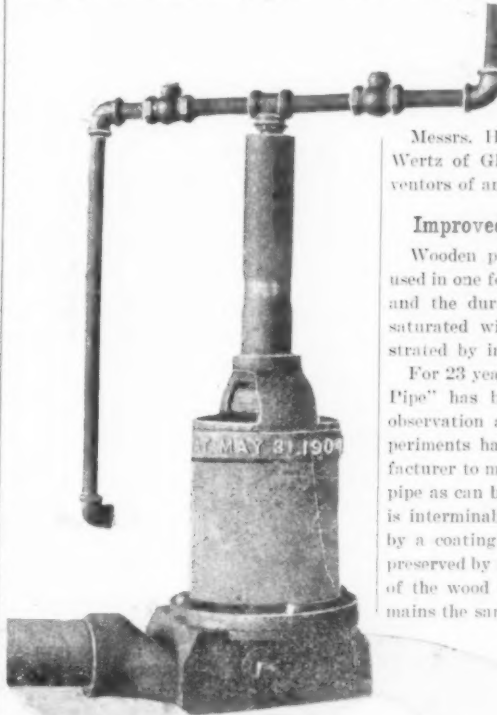
The Commercial Club of Gadsden, Ala., has been reorganized with Messrs. Morris W. Bush, president; S. E. Jordan and B. R. Pegram, vice-presidents; J. R. McMullen, secretary, and Joseph Balfour, treasurer.

A shipment of 4155 tierces and another of 500 tubs of lard, of an aggregate value of \$185,740, was made from Galveston for Hamburg last week.

MECHANICAL

The Fluid Motive Power Pump.

Pumping machinery is steadily being demanded, and the simplest forms of construction for that type of equipment are naturally attracting attention from engineers and other users. Southern inventors have recently perfected a pump for which they claim a number of superior features not found in other types. This is the fluid motive power pump, designed as a more simple and powerful machine to do the work which the hydraulic ram is generally used for, and can be adopted for home or industrial purposes. The



THE FLUID MOTIVE POWER PUMP.

inventors state that the new pump "is simple in construction, strong, neat and durable. It has been tested under different situations, and will put water a distance of several miles to a thousand or more feet in height, and in quantity; also to a number of buildings and to a number of rooms in a building, or can be arranged to attach a hose to throw water over a building or the yard and garden. The equipment will work under any head from two feet up; the greater the head the higher and further it will put water. A branch or a large stream a long distance off can be used to put spring water up to houses, the pump being placed wherever is most convenient. Often a spring can be made to put its own water up to the house by going far enough below and forming a dam to get the desired head. There is positively no mixing of the spring water with the branch water that is used for driving. These pumps are made from the smallest size of 50 pounds pressure to a large size carrying 2000 pounds pressure to the square inch of the plunger, and will lift an inch column of water 23 inches in height for every pound of pressure on the plunger. A large delivery pipe is not required.

"A three-eighths-inch pipe will carry from 3 to 6 gallons of water an hour.

"A one-half-inch pipe will carry from 60 to 120 gallons of water an hour.

"A three-quarters-inch pipe will carry from 120 to 200 gallons of water an hour.

"The fluid motive power pump will easily force water through small pipes turning at right angles several times; will run by turning off or on a spigot, or run continuously as desired. When placed at a small spring where there is not sufficient water to keep it running constantly it will

stop when the head gets below a given point, and then automatically start when it fills up. Or pumps of this type can be made to draw water out of deep wells and put it to any desired height and distance required, the pump being placed at a distance from the well to get the drive power of a few feet of head from some stream convenient. They can be constructed to work slow, from 30 to 40 strokes a minute, or fast, from 75 to 100 strokes a minute, to suit the location or the amount of work required. They are not heavy, but neat and easily handled. One that puts water to an elevation of 500 feet does not weigh more than 150 pounds."

Messrs. H. J. Farnsworth and G. N. Wertz of Glade Spring, Va., are the inventors of and build these pumps.

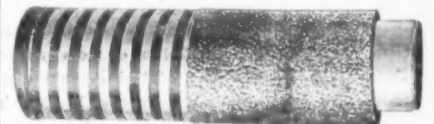
Improved Wyckoff Wood Pipe.

Wooden pipe is not new; it has been used in one form and another for centuries, and the durable qualities of wood when saturated with water have been demonstrated by innumerable examples.

For 23 years "Improved Wyckoff Water Pipe" has been manufactured. Careful observation and application of many experiments have finally enabled the manufacturer to make as nearly perfect a water pipe as can be made. The life of this pipe is interminable. Protected on the outside by a coating of imperishable cement and preserved by the water which fills the pores of the wood in the shell, its condition remains the same as when laid.

The past years have been confined mainly to the manufacture of pipe made from solid logs which is sufficiently strong to sustain the pressure necessary for all domestic and fire purposes. In connection with this has now been patented wood pipe made of machined staves, which can be made any size desired.

This pipe is made in sections about eight feet long, of well-seasoned white-pine staves, which are machined on the sides, forming double tongue and groove, causing them to interlock and be mutually supporting. The inner and outer edges are dressed to conform to an exact curve corresponding to the diameter of the pipe to be constructed. The staves are then thoroughly inspected and assembled in a cylindrical form, after which the sections



IMPROVED WYCKOFF WOODEN PIPE.

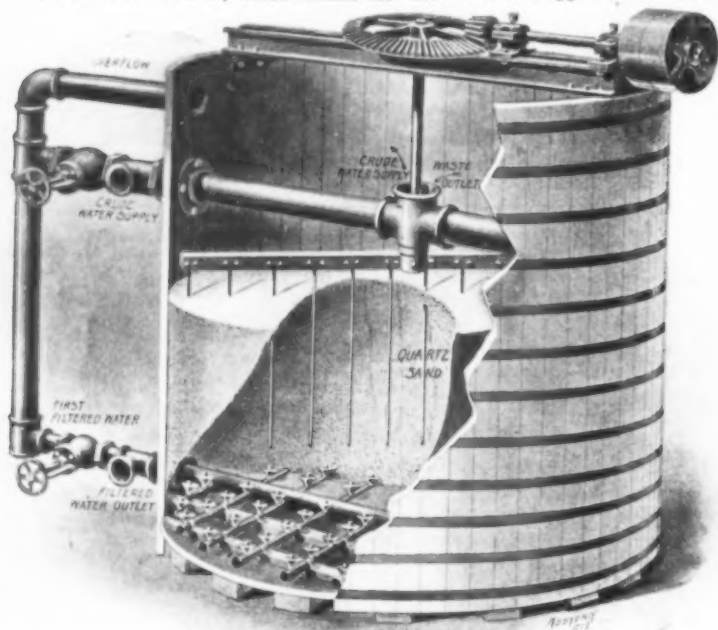
are spirally banded with galvanized wire or steel hoop from end to end under heavy tension, thus making it of uniform strength and rigid as the solid log. A mortise is then put in one end and tenon on the other, so the sections can be driven together. The pipe is then carefully subjected to a hydraulic test to withstand the required pressure, after which the outer surface is heavily coated with an imperishable cement.

In laying this pipe care should be taken to get a level trench and to drive the sections together shoulder to shoulder. The tenon end enters the mortise, which is strengthened by the spiral banding on the

outside, so that a perfect joint is insured. It is stated the expense of laying and making service connections is less than in any other kind of pipe.

The wood shell is to a great extent a non-conductor of heat, which reduces the

the clear water from the system may be forced to any altitude compatible with the pressure in the filter supply pipe at no further cost. The principle of this filter can be seen at a glance, and the effectiveness of it will appeal to those who have



IMPERIAL OPEN-TYPE FILTER.

risk of freezing when exposed to a minimum. This attribute allows the saving of a considerable amount in the laying of pipe in a cold climate, it being necessary to trench less in depth for this pipe than is safe for iron pipe.

An accompanying illustration shows Wyckoff pipe.

Improved Wyckoff Water Pipe gives the best of satisfaction and the best of service under all circumstances. It can be made for all uses. The Michigan Pipe Co. of Bay City, Mich., manufactures the Wyckoff pipe, and invites correspondence for further facts.

Modern Filtration—"Imperial" Systems.

Science has taught the healthfulness of a pure water supply, and during recent years much more attention has been given to the filtration of water than in earlier times. It is known that industrial activity also demands pure water. There are many manufacturing establishments and other industrial enterprises generally where the best results are not obtainable without the use of the purest water, and in numerous instances no results at all can be accomplished without filtration of the water that is consumed. Breweries, paper mills, dye-houses, water-works and innumerable other avenues of modern activity demand pure water, and this is secured in most cases by the installation of modern filtration equipments. Skilled engineers and manufacturers have succeeded in designing and making equipments for this purpose that afford their users all the results aimed at. Filtration has thus become a specialty with a number of corporations retaining extensive manufacturing plants, using the proven designs of skilled men and building filters for the open market. Among these is the Imperial Filter Co. of St. Louis, Mo. This company is prepared to build filters for any requirements and capacity. An accompanying illustration presents a sectional view of the Imperial Open-Type Filter adapted for the purification of large quantities of water in industrial establishments. This type is made of either cypress or steel, and is generally recognized as a standard for such purposes, and its capacity is practically unlimited. By the application of a patented automatic device

any knowledge whatever of ways and means of filtering.

The Imperial Filter Co. invites individuals, firm, corporations, municipal officers and others who may be interested in the filtration question to write for specific details in any case now under consideration. Besides building filtration systems of any extent, the company markets some filters for domestic use that are in great demand because of their superior features.

Motor Drive for Old Tools.

In the history of every established manufacturing plant comes a time in which higher efficiency is demanded to keep up with affairs and to meet with competition of newer and more active concerns. The new manufacturer has the advantage of his older competitor, in that his equipment can be up to date if he wills it, and thus is able to get more machine work with fewer men—to cut operating costs by securing more output from a given line of machine-tool equipment.

The established manufacturer is handicapped in many instances because his machine-tool equipment is too good "to scrap" and not new enough to bring a satisfactory price in the second-hand market.

The Northern Electrical Manufactur-

ing Co. of Madison, Wis., has come to the rescue of those burdened with inefficient belted machine-tool equipments with a new motor, built to afford to good old belted machine tools all the advantages of positive, convenient, economical variable-speed motor drive, to make them efficient money-makers with a minimum change in the tools and but little cost.

The ordinary variable-speed motor is not particularly well suited to application to old belted machine tools, for it is not possessed of the requisite flexibility of application; in order to attach it to the machine to be driven electrically it is necessary to provide too many brackets, etc., for the support of the motor, as well as necessitating large motors.

The Northern Multispeed Motor, as developed by the Northern Electrical Manufacturing Co., consists of a standard Northern single-voltage variable-speed motor, with a change-gear device which supplements the electrical changes secured in the motor, affording extremely wide ranges of speeds with small motor construction.

An accompanying engraving shows the Northern Multispeed Motor. In applying this motor to a belted lathe with many years of good wear left, but not fit to compete with the more efficient newer motor-driven lathes now on the market, the only changes made in the old belted lathe were to remove the spindle-bearing caps and mount in their stead caps incorporated in a saddle, spanning the cone. The third



NORTHERN MULTI-SPEED MOTOR. (See "Motor Drive for Old Tools.")

Two levers are provided for the control of spindle speeds. The range of electrical motor speeds is secured by the manipulation of a lever mounted on the apron and operating the motor controller through spined rod. A lever on the gear-box serves to throw the gears in and out and to operate a clutch, affording a means of stopping the spindle without shutting down the motor. Other simple adaptations can be readily effected.

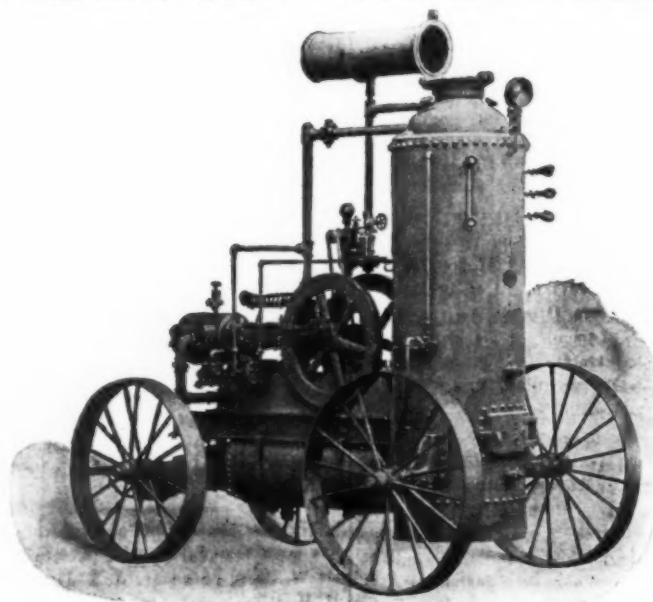
Manufacturers and machine-shop operators interested in the attainment of profits are invited to apply to the Northern Electrical Manufacturing Co., Madison, Wis., for illustrated bulletin and prints on the Northern Multispeed Motor.

Portable Boilers and Air Compressors

There is a demand in many industries for a portable air-compressing outfit which can easily be carried from one location to another and used for the operation of drills, chipping and riveting tools, sand-blasting and similar purposes. The Clayton outfit, illustrated herewith, has been designed by the Clayton Air Compressor Works of 114 Liberty street, New York city. It is entirely self-contained, as the boiler, compressed-air receiver, air compressor and circulating pump for cooling the air-cylinder jackets are all mounted on one truck. For riveting hammers the compressor is proportioned to deliver air at about 100 pounds pressure per square inch, while for sand-blasting and stone tools air is supplied at 70 pounds pressure. The receiver permits the storing of air so that a much larger number of tools may be operated than otherwise, since it is only occasionally that all tools are in operation at the same time. The pressure of the air is maintained by a pressure governor, while the compressor is prohibited from running away, in case of a break on the air line, by a fly-ball speed governor, the two governors being so combined that they operate upon a common throttle valve. The compressor engine exhausts into the stack, thus increasing the draught. The air-compressor cylinder walls are jacketed, and are supplied with cooling water by a small duplex pump.

Nozzle and Hydrant Manufacturing.

Charles Albert Snider of Columbus, Ga., has patented a nozzle for fire department and other uses to be made of brass, and a street hydrant to be made of iron, and contemplates arranging for the manufacture



CLAYTON PORTABLE BOILER AND AIR COMPRESSOR.

cone pulley was arranged for chain drive by applying a split gear to the rim. The motor pinion drives the gear through silent chain, providing positive drive and noiseless operation.

of these articles. Mr. Snider is desirous of contracting with some established manufacturer to make the nozzles and hydrants and employ him in the plant. He is a practical machinist.

Construction Department

TO OUR READERS!

In order to understand and follow properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and more attention than a mere circular.

BALTIMORE BUILDING NOTES.

Business Buildings.

Baltimore—Restaurant.—A. W. Kruse, 308 North Eutaw street, will make general alterations and repairs to building located at 308 North Eutaw street, after plans and specifications by John R. Forsythe, architect, 411 St. Paul street. Heating system, decorating, electrical work and light fixtures not included in contract. Henry S. Rippel, 7 Clay street, and Ignatius Smith, 203 St. Paul street, have been selected to estimate on the work. Estimates to be in February 18.

Baltimore—Store Building.—Rev. F. Bott, 114 West Saratoga street, has awarded contract to Otto Goldbach, 227 East Pratt street, for the general alterations and repairs to store building located at 235 Park avenue.

Baltimore—Store Buildings.—Mary Fear has awarded contract to L. J. Staup, builder, Postoffice Station "E," for the construction of two store buildings to be located at 238 and 240 Harrison street. Structures to be two stories high with basement, each 12.4x52 feet; brick with stone trimmings; concrete foundation; steel beams; tin roofing; galvanized-iron cornices; gas fixtures; sanitary plumbing; cost to be about \$3000.

Baltimore—Dwellings.—George A. Cook, 435 East 25th street, will erect 12 dwellings to be located on Washington street near Lantale street. Structures to be two stories high with basements, each 13.8x45 feet; brick with stone trimmings; tin roofing; galvanized-iron cornices; heating systems; gas fixtures; sanitary plumbing; cost to be about \$12,000.

Baltimore—Warehouse.—Ammidon & Co., tin-plate dealers, 2235 Boston street, will erect warehouse to be located at 31 South Frederick street and extending through to Center Market Space. The site is 29x232 feet.

Baltimore—Store Building.—Wm. May, 1726 Linden avenue, has commissioned Charles M. Anderson, architect, 324 North Charles street, to prepare plans and specifications

for the alterations of store building located at 24 West Lexington street. New store front, tile flooring, skylight and fixtures will be installed. This building is occupied by George Walter, jeweler.

Baltimore—Warehouse.—Cuyler & Mohler, 611 William street, have awarded contract to J. H. Miller, builder, 110 Dover street, for the construction of warehouse to be located at corner Hughes street and Riverside avenue. Structure to be one story high, 25x106.6 feet; brick; concrete foundation; slag roofing; cost to be about \$4000.

Baltimore—Restaurant.—Clamor Hulse-mann, 537 North Howard street, has awarded contract to Thomas B. Stanfield & Son, builders, 109 Clay street, for the construction of restaurant to be located at southeast corner Howard and Centre streets. Structure to be three stories high, 18x30 feet; brick with stone trimmings; steel beams; tin roofing; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; heating system.

Baltimore—Produce Market.—Further details have been obtained concerning produce market to be erected on Centre Market Space and extending through to West Falls avenue after plans and specifications by Simonson & Pietsch, architects, Hoen Building, 302 East Lexington street. Structure to be two stories high, 240x270 feet; brick with stone trimmings; concrete foundation; steel-frame construction fireproofed with concrete; skylights glazed with wireglass; electric wiring and fixtures; sanitary plumbing; heating system; cost to be about \$120,000. The Centre Market Improvement Commission, City Hall, has charge of the work.

Baltimore—Restaurant.—Further details have been obtained concerning restaurant for Mrs. Annie E. Kelly to be erected at 29 South Gay street after plans and specifications by Robert Milker, architect, 1821 North Regester street. Structure to be three stories high with basement, 21.6x30 feet; brick with granite base and Indiana limestone trimmings; concrete foundation; steel beams; slag roofing; galvanized-iron cornice and skylight; metal frames and sashes glazed with wireglass; sanitary plumbing. Electric wiring and fixtures and heating system not included in contract. John A. Sheridan Company, 321 North Holliday street; Burnham & Wells, Builders' Exchange Building, 2 East Lexington street; Morrow Bros., 212 Clay street; Thomas L. Jones & Son, 410 West Saratoga street; Henry S. Rippel, 7 Clay street, and J. H. Miller, 110 Dover street, have been selected to estimate on the construction. Estimates to be in February 24.

Baltimore—Warehouse.—R. Brent Keyser, 14 East Mt. Vernon Place, has awarded contract to Burnham & Wells, builders, Builders' Exchange Building, 2 East Lexington street, for the construction of warehouse to be located at 27 West Baltimore street after plans and specifications by Archer & Allen, architects, Central Savings Bank Building, 3 East Lexington street. Structure to be five stories high with basement, 25x74.7 feet; brick with granite base and Indiana limestone and copper trimmings; concrete foundation; steel beams; slag roofing; vault lights; fire-escape; vault doors; metal frames and sashes glazed with wireglass; sanitary plumbing; hand pavement lift. Heating, electric wiring, elevator, office partitions, intercommunicating telephone system and gas and electric fixtures not included in contract. C. J. Dunn & Co., dealers in leather goods, 321 North Calvert street, will occupy the building. This building previously mentioned.

Baltimore—Office Building.—The Consolidated Gas Co., 104 West Lexington street, has awarded contract to J. & S. H. Lamb, builders, 253 West Preston street, for the construction of its office building to be located at northwest corner Liberty and Lexington streets after plans and specifications by Sperry, York & Sawyer, architects, 409 Calvert Building, Fayette and St. Paul streets. Structure to be five stories high with basement, 33.1x60.8 feet; brick with granite base and terra-cotta trimmings; concrete foundation; steel-frame fireproof construction; tin roofing; galvanized-iron cornice and skylight; granolithic pavement; first floor of reinforced concrete; fire-escape; ornamental cast and wrought iron; vault lights; copper frames and sashes glazed with wireglass; vault doors; interior marble. Heating apparatus, electric wiring, telephone wiring, elevator car and machinery and hot-water heater not included in contract. This building previously mentioned.

Baltimore—Business Building.—Further details have been obtained concerning building

for Wm. H. Keister & Co., 109 West Camden street, to be erected at northwest corner Light and Pratt streets after plans and specifications by the Century Architectural & Engineering Co., H. B. Raffel, 211 North Calvert street. Structure to be four stories high, 25x80 feet; brick with granite base and terra-cotta trimmings; concrete foundation; steel beams; tin roofing; galvanized-iron skylights; vault lights; electric wiring and fixtures; sanitary plumbing; heating system; elevator. Charles McCaul Company, 123 West Saratoga street; Henry S. Rippel, 7 Clay street; Burnham & Wells, Builders' Exchange Building, 2 East Lexington street; John A. Sheridan Company, 321 North Holliday street; R. H. Ford, 407 St. Paul street, and B. W. & E. Minor, 20 Clay street, have been selected to estimate on the construction. Estimates to be in about March 2.

Baltimore—Warehouse.—E. B. Hunting, 213 Courtland street, has purchased the property located at 106 South Gay street and will erect warehouse on the site, which is 25x50 feet.

Baltimore—Warehouse.—Further details have been obtained concerning warehouse for Emanuel Greenbaum, 1614 Eutaw Place, to be erected at 15 and 17 West German street, after plans and specifications by Sperry, York & Sawyer, architects, 409 Calvert Building, Fayette and St. Paul streets. Structure to be four stories high with basement, 38x50 feet; brick with stone trimmings; concrete foundation; steel beams and girders; cast-iron columns; slag roofing; galvanized-iron cornice and skylight; electric wiring and fixtures; sanitary plumbing; heating system; elevator. Morrow Bros., 212 Clay street; Henry Smith & Sons Company, 116 South Regester street; George Bunnecke & Sons, 305 St. Paul street; Burnham & Wells, Builders' Exchange Building, 2 East Lexington street; Thomas L. Jones & Son, 410 West Saratoga street, and Brady & Watters, 532 St. Paul street, have been selected to estimate on the construction; estimates to be in February 27.

Baltimore—Dwellings.—Randolph Forrester, builder, 1821 West North avenue, will erect 14 dwellings to be located on Park Heights avenue near Fifth avenue after plans and specifications by Jacob F. Gerwig, architect, 16 Clay street. Structures to be two stories high with basement, 15x65 feet; brick with stone trimmings; tin roofing; galvanized-iron cornices; gas fixtures; sanitary plumbing; heating systems; cost to be about \$30,000.

Baltimore—Carriage Repository.—Robert Kinnler has awarded contract to B. Howell Hayes, builder, 1121 Riggs avenue, for the construction of warehouse to be located in rear of 411½ West Fayette street. Structure to be five stories high, 30x47 feet; brick with stone trimmings; concrete foundation; steel beams; plastic slate roofing; galvanized-iron cornice and skylight; electric wiring and fixtures; sanitary plumbing; hand elevator; cost to be about \$6000.

Baltimore—Eastern High School.—D. W. & G. H. Thomas, Vickers Building, German street near South street; Cramp & Co., 407 St. Paul street, and Charles L. Stockhausen, National Marine Bank Building, Gay and Water streets, are additional builders who have obtained the plans and specifications for building for the Eastern High School for the purpose of submitting estimates on construction. Full details concerning the building, with names of other builders estimating, recently mentioned. Estimates to be in March 1.

Baltimore—Lumber Shed.—Elsenhauer, MacLea & Co., lumber dealers, 318 West Falls avenue, have purchased the property bounded by Canton, Eastern and Central avenues and Eden street, and will erect a lumber shed on the site with a floor space of 40,000 square feet and a capacity of 1,500,000 to 2,000,000 feet of lumber.

Baltimore—Eastern High School.—The revised plans and specifications for building of the Eastern Female High School for the mayor and city council, to be erected at corner Broadway and North avenue, have been completed by the architects, Simonson & Pietsch, Hoen Building, 302 East Lexington street. Structure to be three stories high with basement, 189x200 feet; brick with granite base and Indiana limestone trimmings; concrete foundation; steel beams and girders; cast-iron columns; tin and granolithic roofing; ornamental terra-cotta cornice and front pediment; reinforced-concrete construction for all stair landings, toilets, corridors and part of first floor; Terrazzo floors; ornamental cast and wrought iron skylights;

interior marble; metal ceilings; electric wiring and fixtures; sanitary plumbing; heating system. Lighting fixtures, kitchen range and furniture not included in contract. Plans and specifications may be obtained from the office of the inspector of buildings, City Hall, by depositing a certified check for \$100 made payable to the mayor and city council of Baltimore. All estimates must be delivered to Harry Hooper, city register, City Hall, by 11 A. M. March 1. Henry S. Rippel, 7 Clay street; Wm. Steele & Sons, 17 West Saratoga street; Charles McCaul Company, 123 West Saratoga street; Charles L. Stockhausen, National Marine Bank Building, Gay and Water streets; D. W. & G. H. Thomas, Vickers Building, German street, near South street, and Cramp & Co., 407 St. Paul street, have obtained plans for purpose of submitting estimates on construction.

Manufacturing Buildings and Other Enterprises.

Baltimore—Journal-box Factory.—The Baltimore Journal Box Co. has been incorporated with an authorized capital stock of \$150,000 by John W. Woodland, 217 South Charles street; Elbridge S. Johnson, 211 North Liberty street; Wm. D. Allen, 211 North Liberty street; James S. Patten and James Woodall.

Baltimore—Distillery.—The Baltimore Distilling Co., foot of Warner street, has awarded contract to Jacob Peters, builder, 411 St. Paul street, for the construction of building to be located at its plant at Highlandtown. Structure to be four stories high, 80x119 feet; brick with stone trimmings; concrete foundations; steel beams and girders; cast-iron columns; slag roofing; sanitary plumbing. Elevator and heating system not included in contract.

Baltimore—Paper-box Factory.—C. C. Bartigle, president Baltimore Vitrified Clay Co., 22 Builders' Exchange Building, 2 East Lexington street, has engaged Morris & Clifford, architects, 657 Calvert Building, Fayette and St. Paul streets, to prepare plans and specifications for and superintend the construction of building to be located at 6 and 8 South Greene street. Structure to be four stories high with basement, 44.3x81.8 feet; brick with artificial-stone trimmings; concrete foundation; steel beams; slag roofing; mill construction; electric wiring and fixtures; sanitary plumbing; hand elevator. The Bartigle Bros. Company, folding-box manufacturer, temporarily located at 1030 Linden avenue, will occupy the building. This building previously mentioned.

Baltimore—Bottling Works.—The Coca-Cola Bottling Co. has been incorporated with an authorized capital stock of \$3000 to conduct a general bottling business by Wm. H. Morton, Jr., Maurice H. B. Hoffman, 1127 North Gilmore street; George W. Little and Edwin R. Stringer.

Baltimore—Coffee-roasting Plant.—Arthur W. Machen, Central Savings Bank Building, 3 East Lexington street, as agent for the Patterson estate, has awarded contract to John E. Marshall & Son, builders, 212 North Calvert street, for the construction of building to be located at 104 and 106 South Frederick street. Structure to be four stories high with basement, 45x50 feet; brick with stone trimmings; concrete foundation; steel beams; cast-iron columns; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; heating system; elevator. The Merchants' Coffee Co., Monument and Ensor streets, will occupy the building and will install modern coffee-roasting plant. This building previously mentioned.

Baltimore—Chemists.—Mullen & Co. has been incorporated with an authorized capital stock of \$5000 for conducting business of chemists by Geo. J. Mullen, Emil J. Klemm, Henry L. Mullen, Francis P. K. Walsh, 310 St. Paul street, and Walter J. King.

Subbids Wanted.

Mention of contractors wanting subbids on construction work and material will be found, when published, in the "Machinery Wanted" column on another page under the heading of "Building Equipment and Supplies."

ALABAMA.

Anniston—Concrete Building Blocks.—Isaac T. Houser, reported last week as to establish plant for the manufacture of concrete building blocks, tiling, etc., will operate as the Anniston Artificial Stone Co. A building 25x50 feet will be erected and equipped for a daily capacity of 100 blocks, which will later be increased.

Battle — Iron Mines and Furnace.—The Lookout Mountain Iron Co. contemplates issuing \$400,000 of bonds for improvements at its iron mines and furnace; annual capacity 100,000 tons of foundry pig-iron.

Bridgeport — Stove Works.—The Gunter Stove Works has reorganized as the Gunter Stove and Range Works with \$15,000 capital stock, and will arrange at once for the resumption of operations.

Carbon Hill — Coal-mining.—The Carbon Hill Coal Co. has increased capital stock from \$25,000 to \$50,000.

Ensley — Steel Plant, Furnace and Mine Improvements.—Dispatches state that the Tennessee Coal, Iron & Railroad Co. has arranged for the expenditure of \$600,000 for additions to steel plant previously mentioned. An additional steel furnace, soaking pits and gas producers are being installed at a cost of \$300,000, increasing the output of the steel mills. The Ensley furnaces will be improved and enlarged at an expenditure of \$200,000, and \$200,000 will be expended in sinking a shaft at No. 2 mine and improving Nos. 4 and 5; general offices at Birmingham, Ala.; New York office at 160 Broadway.

Eutaw — Saw-mill.—The McClure Lumber Co. has purchased 500 acres of timber land in Greene and Hale counties and will establish band mill with a daily capacity of 30,000 feet for its development. The company is capitalized at \$150,000. A. P. McClure will be in charge.

Greenville — Electric-light Plant.—C. C. Henderson Electric Light & Power Co., reported last week as having secured franchise for the establishment of electric-light plant, will erect building 40x60 feet at a cost of \$15,000.*

Mobile — Automatic Vending Machines.—Jackson C. Miles, W. Starty, T. A. Miles of Mobile, Frederick G. Hartell of St. Louis, Mo., and E. L. Brummel of Cairo, Ill., have incorporated the Hartell Vending Machine Co. with \$200,000 capital stock to deal in automatic vending machines, etc.

Montgomery — Lumber Company.—Wadsworth Lumber Co. has been incorporated, with \$100,000 capital stock, to take over the business of the Adams Lumber Co.; incorporators, W. W. Wadsworth, W. T. Shepard, C. N. McLaren and C. S. Adams.

Montgomery — Telephone and Telegraph System.—Chartered: The Lawrence County Telephone & Telegraph Co., by F. L. Woodruff, R. L. Quinn, J. D. Andrews and D. I. Carson.

Pell City — Charcoal-chemical Plant.—A. J. Rhodes, B. G. Rhodes and Mason L. Dean of the Montour Charcoal Co., Kansas City, Mo., will organize the Coosa Chemical Charcoal Co. with \$15,000 capital stock for the establishment of charcoal-chemical plant on a five-acre tract donated by the city. About \$10,000 will at once be invested and the plant will consume about 600 cords of wood per annum.

Rogers — Water-works System.—The Rogers Water Co. has been incorporated with \$150,000 capital stock by W. R. Felker, F. F. Freeman, J. E. Felker and W. R. Felker to construct and operate a system of water pipes.

ARKANSAS.

Clarendon — Stove Works.—The Clarendon Stove Co. has increased capital stock from \$25,000 to \$50,000.

Hamburg — Land and Planting Company.—Incorporated: The Ashley Land & Planting Co., with \$200 capital stock, by J. C. Norman, James R. Bunn, George Norman and others.

Hope — Lumber Company.—J. W. Willis Lumber Co. has been incorporated with \$50,000 capital stock by J. W. Willis, Benjamin Collins, George W. Forke, W. Y. Foster, J. W. Legsten and J. W. Thompson.

Little Rock — Printing Plant.—The Baptist Publishing Co., reported incorporated last week with \$100,000 capital stock, will expend about \$10,000 in the erection of building and the installation of necessary machinery. Address J. N. Hall, president, Fulton, Ky.*

Little Rock — Coal-mining.—Incorporated: The Walker & Cherry Coal Co., with \$10,000 capital stock. R. W. Walker is president; R. S. Hamilton, vice-president, and C. W. Cherry, secretary-treasurer.

Marmaduke — Mercantile.—A. Bertig, S. Bertig and others have incorporated the Bertig Supply Co. with \$10,000 capital stock.

Pine Bluff — Mercantile.—Wolf Nichols and associates have incorporated the Wolf Nichols Dry Goods Co. with \$10,000 capital stock.

Roe — Real Estate.—The Roe Townsite Investment & Improvement Co. has been incorporated, with \$500 capital stock, by Fletcher Trotter, Callie Trotter, Jefferson D. Minnis and Charles W. Cessna.

Texarkana — Manufacturing.—The Union Manufacturing Co. has been incorporated with \$10,000 capital stock by J. F. Black,

H. A. Mann, Chester R. O'Neal and Frank S. Quinn.

Texarkana — Gas and Electric-light Plant.—Texarkana Gas & Electric Light Co. will probably invest from \$30,000 to \$50,000 during the year in improvements previously mentioned, which will include the rebuilding of gas works and the installation of water-gas system. M. J. Meyer is engineer in charge.

DISTRICT OF COLUMBIA.

Washington — Bakery.—The Charles Schneider Baking Co. has been incorporated with \$150,000 capital stock by William Berens, Jas. B. Lambie, James F. Oyster, Daniel Johnson, Somerset R. Waters, Amandus F. Jorno, Andrew Loeffler, Henry C. Espey and William Berens, Jr., to establish bakery.

FLORIDA.

Braidentown — Water-works, etc.—City contemplates installing system of water-works and possibly some sewerage. J. H. Humphries can be addressed.*

Fernandina — Steam Laundry.—Fernandina Steam Laundry Co. has incorporated with \$1000 capital stock. S. C. Thornton is president; H. J. Baker, Jr., vice-president; H. P. Trimble, secretary-treasurer, and C. B. Manship, general manager.

Jacksonville — Street-paving.—John N. C. Stockton has contract at \$54,479 for grading, furnishing material and paving with vitrified paving blocks approximately 37,800 square yards of street surface.

Jacksonville — Cigar and Tobacco Factory.—Incorporated: Florida Cigar & Tobacco Co., with \$100,000 capital stock, to manufacture and deal in cigars and tobacco. Charles B. Rogers is president; Henry C. Armstrong, vice-president; Charles W. Bartleson, secretary-treasurer.

Key West — Cigar Factory.—The Mankin Construction Co., 812 East Main street, Richmond, Va., has the contract to erect proposed hollow-cement-block factory building for the Havana-American Company; to be four stories, 52x152 feet, have tile roof, copper gutter and downspout, electric lights, two-story fireproof vault and electric elevator; cost \$25,000. A 15,000-gallon tank in the tower, extended 30 feet above roof, and a 90,000-gallon cistern, from which water will be conveyed to tank by an electrically-driven pump, will also be installed.

Melrose — Saw-mill.—It is reported that Yearwood & McDonald are arranging for the erection of another saw-mill; plant will have a capacity of 50,000 feet of lumber and 75,000 to 100,000 shingles daily.

Pensacola — Real Estate.—The West Pensacola Land Co. has been organized with \$10,000 capital stock by James L. Muldon, J. R. Saunders, William S. Keyser, Thomas C. Watson, J. J. Hooton and others.

GEORGIA.

Acworth — Cotton Mill.—The Acworth Cotton Manufacturing Co. has been incorporated with capital stock of \$50,000 to build a cotton mill. Orlando Awtry is temporary president.

Austell — Coal and Lumber Company.—J. H. Akers, W. S. Pratt, R. J. Craig and others have incorporated the Pratt Coal & Lumber Co. with \$10,000 capital stock to deal in coal and lumber.

Columbus — Nozzle and Hydrant Factory.—Chas. Albert Snider has patented a fire nozzle for fire department and other uses to be made of brass and a street hydrant to be made of iron. He contemplates arranging for the manufacture of these articles.

Columbus — Water-works.—The Blue Springs Water, Land & Construction Co. has made a proposition to the city to establish water-works with a daily capacity of 5,000,000 gallons and costing \$600,000.

Dalton — Flour Mill.—Barrett, Denton & Lynn are having plans prepared by Marlatt & Dozier, Richmond, Ind., for five-story frame building, composition roof, which will be equipped as flour mill; cost \$25,000.

Grantville — Cotton-yarn Mill.—The Grantville Hosiery Mills will build a mill for manufacturing the yarns for its mill; \$75,000 will be expended.

Macon — Vehicle Works.—Incorporated: The S. S. Parmelee Company, with \$40,000 capital stock, and privilege of increasing to \$75,000, by S. S. Parmelee, A. S. Hatcher and J. A. Dunwoody, to continue an established business.

McCart — Fertilizer-factory Improvements.—The Chickamauga Fertilizer Co. is reported as to expend \$50,000 in improvements, including the erection of frame building, 140x300 feet, which will be equipped with the most modern machinery for manufacturing sulphuric acid. W. B. Hudson is manager.

Palmetto — Cotton Mill.—The Palmetto Cotton Mills, reported last week as to expend \$20,000 for erecting an addition and installing new machinery, has awarded contracts for the equipment. Eighty looms, with slashers, spoolers, warpers, etc., will be put in position.

Tallahassee — Silk Mill.—It is reported that Louis B. Magid has completed plans for the establishment of his proposed silk mill.

Valdosta — Naval Stores, etc.—The H. E. Miller Company has been incorporated, with \$10,000 capital stock, by H. E. Miller, D. C. Ashley, J. Y. Blitch and associates, to manufacture naval stores.

Waycross — Street Paving.—City contemplates issuing \$50,000 of bonds for street paving. Address The Mayor.

KENTUCKY.

Erlanger — Steel Bridge.—It is reported that the Cincinnati, New Orleans & Texas Pacific Railway (Queen & Crescent Route) will replace bridges Nos. 9 and 10, near Erlanger, with double-track steel structures costing \$300,000 and \$125,000, respectively, for which plans have been prepared by Geo. B. Nicholson, chief engineer, Cincinnati, Ohio.

Frankfort — Bridge.—Frankfort & Versailles Traction Co., James M. Pickrell, Winchester, Ky., general manager, will construct a bridge across the Kentucky river near Frankfort.*

Henderson — Foundry and Machine Shop.—It is reported that J. F. Hite of Owensboro, Ky., has purchased the plant of the Frayser Foundry & Machine Co. and will operate as the Henderson Machine Works.

Henderson — Flour Mill.—It is reported that a 30 to 50-barrel flour mill will be installed, and C. L. Clay can give information.

Lawrenceburg — Electric-light Plant.—Lawrenceburg Electric Light Co. has completed organization with J. M. Johnson, president; E. W. Rippey, vice-president; Dr. C. A. Leathers, secretary, and R. S. Collins, treasurer. The company will at once arrange for the installation of electric-light plant.

Louisville — Vinegar Works.—McDonald & Shebley, Fourth avenue and Main street, are preparing plans for proposed factory building for Hirsch Bros.; structure to be four stories, 60x85 feet, of brick, and cost \$28,000.

Mannington — Coal Mining and Timber Development.—Mannington Coal & Coke Co. has been organized, with J. B. Williams of Frostburg, Md., president; Wm. B. Redgrave of New York, N. Y., vice-president; Andrew Hogg of Mannington, secretary, and Wm. G. Miller of Frostburg, Md., treasurer, for the development of coal lands at Mannington. Machinery will be installed for mining 1000 tons daily. The company will also arrange for the development of the timber on the surface.*

Marion — Water-works.—City will probably not ask bids until next summer for the construction of water-works system to cost about \$25,000, for which Granberry Jackson, C. E., Nashville, Tenn., was reported last week as engineer in charge. Town has a population of 2000.

Maysville — Tobacco Factory.—W. S. Buckles of Carlisle, Ky., it is reported, will organize the Maysville Tobacco Plant for the purpose of manufacturing all tobacco grown and delivered to it by Kentucky, Virginia, North and South Carolina and Tennessee.

Midway — Soap Factory.—Midway Manufacturing Co. has been organized with H. C. Kasselman, president; W. B. Cogar, secretary; C. W. Parrish, treasurer, and W. C. Kingsbury, superintendent, to establish soap factory.

Nicholasville — Ice and Cold-storage Plant.—Nicholasville Ice & Cold Storage Co., reported incorporated last week with \$30,000 capital stock, will erect two buildings, 24x36 feet and 42x30 feet. The ice factory will have a daily capacity of 15 tons and the cold-storage plant will have 8000 feet of storage. T. S. Marmon is engineer in charge, and C. A. Kenney, general manager.

Owensboro — Vehicle Works.—W. F. Breedlove and C. W. Kimberlin are reported as preparing plans for a factory building (previously mentioned) to be erected by the Owensboro Wagon Co.; building to be two stories, of brick and steel, 76x938 feet, and equipped with automatic sprinklers.

Paducah — Street Paving.—Board of Public Works is contemplating arrangements for proposed street paving. About 50 blocks will be paved at a cost of from \$150,000 to \$300,000; to have vitrified brick or blutithic streets and concrete sidewalks and curbs, and contracts for the work will be let some time in March; L. A. Washington, city engineer.

Seabrook — Electric-light Plant.—Report mentioned last week that J. B. Ramsey had secured franchise to construct and operate

electric-light plant is correct; building 18x24 feet will be erected and plant will have a capacity of 1000 lights.*

Whitesburg — Printing Plant.—Whitesburg Printing Co., reported incorporated last week, will erect two-story building 50x100 feet.*

LOUISIANA.

Abbeville — Water-works and Sewerage System.—R. C. Huston, Laurel, Miss., engineer in charge of water-works, previously reported, states the plant will have a capacity of 1,000,000 gallons. Forty-five thousand dollars to \$50,000 will be expended. The construction of sewerage system is also reported. Bids for the work will shortly be asked.*

Gretna — Electric-light System.—Reports state that the Algiers (La.) Water-Works & Electric Light Co. will extend system so as to furnish Gretna with electric lights.

Hall City (P. O. Merryville) — Townsite, Hardwood Mill, etc.—The Chicago-Texas Land & Lumber Co. of Chicago, Ill., owning 16,000 acres of timber land in Louisiana, is having surveys made by Surveyor Shotts for the location of townsite to be known as Hall City, installation of hardwood mill and the construction of tramroad through its holdings to bring the timber to the mill. E. M. Hutto is in charge.

Monroe — Furniture Factory.—E. T. Lanuin of Monroe and H. H. Childers of New York, N. Y., are organizing company with \$100,000 capital stock to erect and operate a furniture factory.

New Orleans — Sash, Door and Blind Factory.—Reimann Manufacturing Co., Ltd., has been incorporated with \$20,000 capital stock to manufacture sash, doors, blinds, etc., by Chas. F. Reimann, A. Fleisch, Ernest E. Reimann, Louis A. Reimann and Wm. Thiele.

New Orleans — Grocery Company.—Incorporated: Parker-Fain Grocery Co., Ltd., with J. B. Fain, president; T. C. Barge, vice-president; M. L. Allen, secretary-treasurer, and L. A. Parker, general manager; capital stock \$150,000.

New Orleans — Publishing.—La Colonia Publishing Co. has been incorporated with \$5000 capital stock by Frank Cabili, M. Rosamano, John Geraci and associates to publish an Italian newspaper.

New Orleans — Realty Company.—The Keep Realty Co., Ltd., has been incorporated, with \$5000 capital stock, by E. H. Keep and others.

Shreveport — Steel Bridge.—The Missouri Valley Bridge & Iron Co., Leavenworth, Kan., has the contract for building the piers of the bridge across the Red river at Shreveport, previously reported to be constructed by the St. Louis & Southwestern Railway. The bridge will be 1250 feet long, with six spans.

MARYLAND.

Cumberland — Coal Mining.—The Cumberland-George's Creek Coal Co. has purchased five tracts of coal land in Allegany and Garrett counties and will increase its operations by opening additional mines.

MISSISSIPPI.

Bogue Chitto — Mercantile.—Thad B. Lamp-ton and others have incorporated the Bollen Mercantile Co., with \$30,000 capital stock.

Brookhaven — Street-paving.—City will construct 16 squares of pressed brick sidewalk, 10 feet wide. Address The Mayor.

Jackson — Box Factory.—Reports state that Chicago capitalists are negotiating with the Board of Trade relative to the establishment of a box factory. It is stated that about \$10,000 will be invested and the plant will have a yearly output of about 1000 carloads.

Jackson — Cottonseed-oil Refinery.—Dispatches state that the Mississippi Cottonseed Crushers' Association has been organized to build a cottonseed-oil refinery and by-product plant at a cost of \$500,000 and for other purposes. Seventy-four independent oil mills are said to be members of this organization. W. H. Madden, Yazoo City, Miss., is temporary chairman of organization and of committee to confer with makers of machinery for refining.

Greenwood — Levee Works.—Reports state that the Yazoo-Mississippi Delta Board of Levee Commissioners will issue \$300,000 of bonds for levee-improvement work during the current year. Address Hon. W. S. Barry, president.

Hattiesburg — Car-building Shops.—Reports state that the Mississippi Central Railroad Co., F. L. Peck, president, and the J. J. Newman Lumber Co. will erect car-building plant.

Indianola — Ice Factory.—Reports state that an ice factory will be built at a cost of \$20,000. W. T. Pitts or Gus Hecker can probably give information.

Maben — Brick Works.—Maben Brick Co. is establishing plant for manufacture of brick

with a daily capacity of 50,000; authorized capital stock \$30,000.

McComb—Incorporated: Keith-Guy Company, with \$25,000 capital stock, by W. A. Guy, M. L. Keith and others.

Meridian—Coffin Factory.—Meridian Coffin Co. has amended charter increasing capital stock to \$50,000.

Mississippi—Real Estate.—Mississippi Valley Corporation has been incorporated with \$5000 capital stock by James B. Dill, Frederick W. Garvin and Francis S. Hutchins, all of East Orange, N. J., to deal in real estate; office, 525 Main street, East Orange, N. J.

Oxford—Chartered: Sisk-Brenner-Lawshee Company, with \$20,000 capital stock, by J. A. Sisk and associates.

Pelahatchee.—Incorporated: J. A. Spann & Co., with \$25,000 capital stock, by J. A. Spann and others.

Quitman—Brick Works.—Quitman Brick Manufacturing Co. has been incorporated, with \$40,000 capital stock, by C. S. Edmondson and associates.

MISSOURI.

Kansas City—Furnace Works.—Hampden Double Combustion Furnace Co. has been incorporated with \$15,000 capital by W. R. Hampden, A. F. Whelan and F. C. Montee.

St. Louis—Coal-mining.—Z. W. Davis, G. L. Faulhaber and John S. Fee have incorporated the Fee-Davis Coal Co. with \$10,000 capital stock to mine coal.

St. Louis—Construction Company.—Cudmore Construction Co. has been incorporated, with \$5000 capital stock, by A. Cudmore, James F. Cudmore, Ross Anderson and others.

St. Louis—Condiment Manufacturing.—Wright Smith Manufacturing Co. has been incorporated with \$7500 capital stock to manufacture condiments and a general line of grocers' sundries; incorporators, Wright Smith, Julius T. Waniger, Anthony F. Itner of St. Louis and Clarence M. Lattimer of Ferguson, Mo.

St. Louis—Iron and Brass Foundry, etc.—The Kingsland-Kay-Cook Manufacturing Co., previously reported incorporated with \$120,000 capital stock, has purchased the plants of the Central Union Brass Co., Kay-Pim Manufacturing Co. and the Kingsland Foundry Co., which will be consolidated and operated. The company will manufacture iron and brass castings, electric railway supplies, car trimmings, power-transmission machinery, elevating and conveying appliances.

St. Louis—Clothing Factory.—J. S. Wolff Clothing Co. has been incorporated with \$75,000 capital stock by J. S. Wolff, A. S. Simon, Ida Mackey and Morris Marks to manufacture and deal in clothing, etc.

NORTH CAROLINA.

Burlington—Electric-light-plant Improvements.—City will in the future enlarge electric-light plant and install additional engines and kilowatt dynamos; W. A. Hall, mayor.

Chapel Hill—Canning factory Equipment.—Chartered: The Raney Canner Co., with \$20,000 capital stock, by T. H. Raney, J. H. Pratt and J. W. Cheek, to manufacture canning outfits.

Charlotte—Mattress Factory.—The Southern Cotton Oil Co. is reported as to erect plant for the manufacture of felt mattresses having a daily capacity of from 200 to 300. T. H. Benton of Scranton, Pa., will be in charge.

Charlotte—Contracting Company.—The Propst Contracting Co. has been incorporated, with an authorized capital stock of \$50,000, to do a general contracting business; incorporators, E. P. Propst, J. T. Propst, B. E. Propst and T. L. Talbert.

Concord—Mercantile.—Incorporated: The Glenn & Carroll Company, with \$10,000 capital stock, by J. A. Glenn and others.

Cornelius—Mercantile.—J. L. Smith and associates have incorporated the Smith-Westmoreland Company with an authorized capital stock of \$20,000.

Dallas—Electric-light Plant.—City will petition the legislature to grant an election for voting on the issuance of \$5000 of bonds to install system of electric lights. Address The Mayor.

Fayetteville—Electric-light Plant.—City contemplates enlarging electric-light plant at a cost of \$30,000. Address The Mayor.

Flatrock—Mercantile.—The P. H. Walker Company has been incorporated with an authorized capital stock of \$10,000 by R. I. Lawndes and associates.

Franklin—Mica Mines.—Dr. G. A. Munch of Detroit, Mich., and associates have organized the Imperial Mica Co. for the develop-

ment of mica mines on the Lyle Knob property. About \$5000 will be expended.

Graham—Flour Mill.—It is reported that Walker Bros. will erect 25 to 30-barrel roller mill.

Graham—Water-works, Electric-light and Ice Plants.—The Southern Public Service Corporation of Washington, D. C., is having plans prepared by Henry A. Pressey, C. E., 1416 F street, Washington, D. C., for proposed water-works, electric-lights and 15-ton ice plants. A 65-kilowatt A. C. generator and station equipment for municipal electric lighting, 90-horse-power vertical compound engine, two 125-horse-power horizontal tubular boilers, 400-gallon triplex pump, 75,000-gallon water tower will be installed, and a wooden-frame power-house covered with corrugated-iron sheeting will be erected. Bids will be asked about March 15.

Lenoir—Water-works.—Town wants to install water-works system on rental basis. Address J. E. Mattocks, secretary Board of Trade.

Lowell—Water-power-Electrical Plant.—The Spencer Mountain Mills will develop 1000 horse-power on the Catawba river and transmit power by electricity. Ladshaw & Ladshaw of Spartanburg, S. C., have been engaged as engineers in charge. (About a year ago the Spencer Mountain Company was contemplating the erection of another mill, to have 10,000 spindles, and probably this development is to be undertaken with a view to building that plant.)

Spencer—Water-works.—City has granted franchise to William P. Lockwood, Washington, D. C., for the construction and operation of water-works system.

Sutphin—Flour Mill.—Reports state that J. Thompson will install new machinery at his mill.

Thomasville—Chair Factory.—The Thomasville Chair Co. has incorporated with \$10,000 capital stock and privilege of increasing to \$50,000 to manufacture chairs; incorporators, G. A. Allison, John R. Myers, F. S. Lambert, J. W. Lambert, R. L. Lambert, John T. Cromer, C. A. Julian and J. W. Marsh.

Tryon—Mercantile.—Incorporated: The Ballenger Company, with \$10,000 capital stock, by B. L. Ballenger, C. W. Ballenger, T. T. Ballenger and J. S. Hester, to continue an established business.

SOUTH CAROLINA.

Gaffney—Bottling Works, Hotel, etc.—Piedmont Mineral Springs Co., reported incorporated last week with \$25,000 capital stock, is having plans prepared by L. Baker for bottling plant and a 40-room hotel. P. V. Gaffney is treasurer and manager.*

Georgetown—Publishing.—Carolina Publishing Co. is the correct title of company previously reported as organized by Joseph Schenk and associates with \$10,000 capital stock to publish the Carolina Field.*

Iva—Cotton Mill.—Plans for organizing the cotton-mill company mentioned last week have not been fully formulated. When arrangements have been completed the capital stock will probably be \$250,000, to build a 10,000-spindle plant. D. P. McBrayer of Anderson, S. C., is interested.

Newberry—Handkerchief Factory.—It is reported that W. H. Raysor has ordered the equipment of machinery for his proposed handkerchief factory; electricity to be the motive power.

Seneca—Knitting Mill.—J. L. O. King and others are organizing company to establish a knitting mill. Machinery not purchased as yet.*

St. George—Vehicle Works.—Henry Van Orsen of Orangeburg, S. C., has purchased site on which it is reported he will establish plant for the manufacture of carriages, buggies and wagons.

Sumter—Steam Laundry.—The Sumter Steam Laundry Co. has been organized with \$8000 capital stock. R. E. Dean of Darlington, S. C., is president; J. J. Harby, vice-president; F. A. Bultman, secretary-treasurer (both of Sumter), and E. G. Gross of Charleston, S. C., general manager.

Summerville—Pickle Factory.—Southern Pickle Co. has been incorporated with \$10,000 capital stock by J. T. E. Thornhill and Wallace Hutchinson to establish pickle factory.

Sumter—Fiber Plaster Factory.—W. E. Cochran, general manager of the Continental Engineering & Equipment Co. of Pittsburgh and Butler, Pa., is reported as investigating site for the establishment of plant to manufacture cement plaster and other building materials, and proposes organizing \$15,000 company for its operation.

Union—Carriage Works.—Reports state that the Union Carriage Works will rebuild plant recently burned.

Wellford—Corn Mill.—It is rumored that J. J. Vernon will install corn mill on North Tiger river.

Yorkville—Telephone System.—W. B. Moore has applied for franchise to install telephone system. If franchise is granted company will be organized to operate system.

TENNESSEE.

Ashland City—Creosoting Plant.—The Ayer & Lord Tie Co., Chicago, Ill., states there is no truth in the report, mentioned last week, that they would establish a plant for treating crossties.

Bristol—Trousers Factory.—Reports state that O. E. Mahoney is organizing \$15,000 company to establish plant for the manufacture of trousers and overalls.

Chattanooga—Candy Factory.—Jerome D. Ashley of Chattanooga and Harry L. Miller of Indiana will establish candy factory. Building has been secured at 123 Carter street and machinery is being installed.

Chattanooga—Cleaning Company.—Chartered: Fred A. Bryan Cleaning Co., with \$5000 capital stock, by Fred A. Bryan, C. R. Wallace, Ernest W. Holmes, R. D. Stuart and Battle McLester, to clean out buildings, bridges and other structures by the compressed air sand-blast process.

Chattanooga—Cotton Mill.—The Bowen-Jewell Company, Jewell, Ga., has purchased the Ruohs Cotton Mill at Chattanooga and will equip it with modern machinery for manufacturing cotton and jute bags, using the cloth made in the mill at Jewell.

Chattanooga—Agricultural Implements.—The Chattanooga Implement & Manufacturing Co. will increase capital from \$50,000 to \$100,000. This company was previously reported as to build an addition to plant.

Chattanooga—Fruit Company.—M. B. Russell, R. S. Faxon, G. E. McGhee, C. W. Olson and E. W. Stuart have incorporated the Chattanooga Fruit Co. with \$10,000 capital stock.

Dresden—Hardware and Implement Company.—Incorporated: The Weakley County Hardware & Implement Co., with \$10,000 capital stock. J. H. Elder is president; M. Meeks, vice-president; N. A. Hardeman, secretary-treasurer, and W. S. Gray, general manager.

Elizabethton—Bakery.—C. T. Hendrix & Co., it is reported, contemplate establishing bakery.

Humboldt—Mill and Elevator Company.—Humboldt Mill & Elevator Co. has been incorporated with \$20,000 capital stock by James R. Evans, George W. Clement, Victor F. Jockey, Edward W. Clement and Emma O. Clement.

Knoxville—Lumber Mill.—The Crown Lumber & Manufacturing Co., reported incorporated last week with \$10,000 capital stock, will erect building 48x56 feet. The company will deal in rough and finished lumber, manufacture building materials, etc. E. B. Henry and A. R. McMurtry are architects and engineers in charge; office, 617 Prince street.*

Loudon—Grain Elevator.—Reports state that Horne & Goans will build elevator.

Memphis—Machinery and Mill Supplies.—Chartered: J. D. Kennedy Company, with \$3000 capital stock, by J. D. Kennedy, Ella R. Kennedy and associates to deal in machinery and mill supplies.

Nashville—Printing Plant.—Incorporated: The B. L. Foster Company, with an authorized capital stock of \$20,000, by B. L. Foster, D. T. Foster, L. Roy Summitt, W. H. Walraven and Joseph W. Byrns, to continue an established business.

Shelbyville—Electric-light Plant.—City contemplates installing electric-light plant, and invites correspondence. Address H. L. Wooley.*

Shelbyville—Cannery.—The Canning Factory Co. has completed organization with W. E. Gantz, president; J. H. Neil, vice-president; W. G. Hill, secretary-treasurer, and W. W. Clark, superintendent.

Sweetwater—Knitting Mill.—The Sweetwater Hosiery Mills, reported last week as increasing capital stock from \$35,000 to \$50,000, has let contract for 35 additional knitting machines and other equipment.

TEXAS.

Athens—Cannery.—The Athens Canning Co. has been incorporated with \$5000 capital stock by A. W. Bass, A. F. Wood, James Warren, T. B. Green and D. A. Poyner.

Austin—Flour Mill.—The Cordz Milling Co., reported incorporated recently with \$75,000 capital stock, has secured site on which to erect four-story building, which will be equipped for a daily capacity of 350 barrels of flour and meal; about \$30,000 will be invested. Machinery has been purchased.

Beaumont—Glass Works.—It is reported that a movement is on foot to establish two plants for the manufacture of window and other kinds of plate glass and one plant for the manufacture of glass bottles, and that H. Forres is interested.

Beaumont—Transportation Company.—J. F. Keith, W. C. Tyrrell, B. R. Norvell, E. A. Fletcher and C. A. Earley have incorporated the Beaumont & Saratoga Transportation Co. with \$20,000 capital stock.

Big Spring—Lumber Company.—The Hinds Lumber Co. has increased capital from \$10,000 to \$20,000.

Crowell—Cemetery.—Crowell Cemetery Association has been incorporated by James F. Witherspoon, George T. Crowell and J. C. Thompson.

Dallas—Soda-water Apparatus and Supplies.—The J. Grosman & Sons Manufacturing Co. is reported as to remove plant from Marshall, Texas, to Dallas. It is stated that the capital stock will be increased from \$95,000 to \$125,000, and new and additional machinery will be installed for increasing the facilities.

Dallas—Paint Factory.—It is reported that Northern parties will establish paint factory. John G. Hunter, secretary Commercial Club, can probably give information.

Dallas—Development Company.—G. W. Smith, R. Daniels and G. A. Hickok have incorporated the Texas Home Development Co. with \$100,000 capital stock.

Denison—Railroad Repair Shops, Bridges, etc.—It is reported that the Missouri, Kansas & Texas Railway will make improvements to machine and car shops. It is also stated that iron bridges will be erected on the Dallas division at a cost of \$200,000. Address G. W. Wheeler, general foreman.

El Paso—Water-works.—The International Water Co. has let contract for the construction of proposed water-works; plant to have a capacity of 3,000,000 gallons a day.

Fort Worth—Electric-light and Power Plant.—It is reported that E. G. Bruckman, vice-president G. H. Walbridge & Co., New York, N. Y., contemplates establishing electric-light and power plant.

Fort Worth—Incorporated: F. H. Campbell & Co., with \$20,000 capital stock, by F. H. Campbell, F. H. Barwise, D. W. Martin, S. H. Walton and George Q. McGowan.

Granbury—Telephone System.—Fort Worth Long Distance Telephone Co. has been incorporated by D. C. Cogdell, J. N. Nutt and others.

Hillsboro—Hardware Company.—Lamar Thompson, W. E. Thompson and R. A. Meslek have incorporated the Thompson Hardware Co. with \$10,000 capital stock.

Houston—Oil Wells.—The Daddy Oil Co. has been incorporated with \$30,000 capital stock by J. D. McGregor, W. B. Chew and C. D. Reeves.

Houston—Lumber Company.—South Texas Lumber Co. has increased capital from \$100,000 to \$200,000.

Houston—Oil Wells.—Gordan-Gully Oil Co., previously reported incorporated with \$100,000 capital stock, has increased same to \$200,000; office, 217 Main street.

Houston—Dental Company.—Incorporated: The Texas Dental Co., with \$10,000 capital stock, by A. F. Gainbate, Thomas P. Williams, Charles H. Edge, M. J. Lossing and associates.

Houston—Glass Factory.—Hugh Hamilton and associates have formed the Houston Glass & Bottle Manufacturing Co. with \$100,000 capital stock for the location on Buffalo layout of plant for the manufacture of glass. Machinery has been purchased.

Huntsville—Dry-kiln, etc.—The Barrett & Cline Lumber Co., reported incorporated last week to continue an established business, is making improvements to plant involving an expenditure of \$18,000, including the installation of hot-air dry-kiln 25x75 feet, increasing dry-shed capacity and adding new machinery. Contracts have been let. Capacity of mill is 40,000 feet; planer capacity 20,000 feet.

Keene—Canning Company.—Incorporated: Keene Canning Co., with \$5000 capital stock, by A. P. Wesley, J. L. Jones and others.

McKinney—Beet-sugar Refinery.—Reports state that Hunter Woodson contemplates establishing beet-sugar refinery.

McKinney—Woolen Mill.—Edward J. Tanner will establish a woolen mill.

Pecos—Irrigation System.—Loving County Land & Irrigation Co. has been incorporated with \$10,000 capital stock to establish a system of irrigation by C. D. Weeks, W. R. Weeks of El Paso, Texas, and others.

New Boston—Water-works.—It is reported that Sidney Stewart, State National Bank

Building, Texarkana, Ark., is preparing plans for proposed water-works.

Orange—Telephone System.—Orange & Newton Telephone Co. has been incorporated with \$5000 capital stock by E. R. Webber, A. M. H. Stark, F. H. Farwell, E. W. Brown and C. W. Emmer to establish telephone line between Orange and Newton, Texas.

Pittsburg—Water-works.—City has let contract for the construction of water-works, for which M. Griffin O'Neil of Dallas, Texas, was reported last August as preparing plans and specifications; cost \$20,000. John W. Hooper is mayor.

San Antonio—Butter Refinery.—It is reported that John M. Stokes contemplates organizing company to establish butter refinery with a daily capacity of 1000 pounds. Address 534 Goliad street.

San Augustine—Mercantile.—J. W. Porcher and associates have incorporated as Porcher, Downs & Co. with \$16,000 capital stock.

Stamford—Mercantile.—D. O. McKimmon and others have incorporated the D. O. McKimmon Mercantile Co. with \$50,000 capital stock.

Stamford—Hardware Company.—C. M. Patillo Hardware Co. has been incorporated with \$20,000 capital stock by C. M. Patillo, S. R. Tadlock and Milton Patillo.

Van Alstyne—Mercantile.—Incorporated: The Jamison-Robnett Company, with \$10,000 capital stock, by F. G. Jamison and others.

Vernon—Live-stock Company.—Hagler Cattle Commission Co. has been incorporated with \$10,000 capital stock by J. D. Hagler, R. M. Waggoner and C. T. Herring.

VIRGINIA.

Alexandria—Chemical Works.—Cheeseman Chemical Co. has been incorporated with \$200,000 capital stock to establish plant for the manufacture of chemicals. A. H. Agnew is president; L. Cheeseman, vice-president, and J. A. Eggborn, secretary-treasurer.

Boydton—Lumber Mill.—Cogbill-Goode Lumber & Manufacturing Co., previously reported organized, will erect two-story building 80x100 feet and equip for a daily capacity of 20,000 feet. The company has an authorized capital of \$50,000. M. P. Watkins is general manager.

Buena Vista—Extract Works.—Reports state that the Buena Vista Extract Co. will enlarge plant and double the present capacity.

Covington—Real Estate.—Chartered: The Jackson & Cow Pasture Boom Co., with \$10,000 capital stock, to deal in real estate. Julius Wolf of New York, N. Y., is president, and P. V. Rovnianek of Pittsburg, Pa., secretary.

Fredericksburg—Vehicle Works.—Reports state that W. T. Leavell has purchased site on which to establish plant for the manufacture of buggies, wagons, etc.

Hampton—Mercantile.—T. M. Wood Company has been incorporated with T. M. Wood, president, and J. B. Wood, secretary-treasurer; capital stock \$15,000.

Lynchburg—Foundry and Machine Shop.—R. G. Terry will establish foundry and machine shop. Address 809 Court street.

Manassas—Gas and Electric-light Plant.—The Manassas Illuminating Co. has been incorporated with \$5000 capital stock to furnish gas and electric lights for manufacturing and mechanical plants. W. N. Lipscomb is president; R. S. Hynson, secretary, and G. W. Payne, treasurer.

Midlothian—Lumber Company.—Chartered: Marianna Lumber Corporation, with \$300,000 capital stock. Thomas Armstrong is president and treasurer, and Frank P. Ryan, secretary (both of Richmond, Va.).

Norfolk—Real Estate.—The Belt Line Industrial Co. has been incorporated with \$50,000 capital stock. W. W. Moss is president; R. B. Taylor, vice-president, and A. P. Page, secretary-treasurer.

Norfolk—Construction Company.—Incorporated: Virginia Construction Corporation, with F. F. Ferguson, president; James W. Bain, vice-president; capital stock \$15,000.

Norfolk—Knitting Mill.—It is reported that Frederick A. Brayton of Nyack, N. Y., will establish a knitting mill in Norfolk.

Norfolk—Dry-dock.—Smith & McCoy have had plans prepared by William T. Donnelly of Faber, Du Faur & Donnelly, 132 Nassau street, New York, N. Y., for the construction of a floating dry-dock capable of lifting a 5000-ton ship and costing \$150,000. The dock will be built in five sections, each 60x82 feet, with a keel depth of 11 feet and an over-all depth of 31½ feet, etc. Messrs. Smith & McCoy will also make improvements to their 3000-ton marine railway.

Petersburg—Hosiery Mill.—The Petersburg Hosiery Co., now operating a mill, has been

incorporated with A. S. Reimach, president. Richlands—Brick Works.—Richlands Brick Co. has been incorporated with \$50,000 capital stock to establish brick works. D. G. Robinson is president; H. Y. Ayers, secretary, and Joel Booth, treasurer.

Richmond—Incorporated: Hogg, Hook & Co., with \$10,000 capital stock, and James H. Grant, president; Arthur Hook, secretary, and George T. Hogg, treasurer.

Richmond—Oyster Company.—Tar Bay Oyster Co. has been incorporated with \$10,000 capital stock. John H. Johnson is president; W. D. Cardwell, vice-president, and E. L. C. Scott, secretary-treasurer.

Roanoke—Real Estate.—Clydale Land Co. has been incorporated with \$25,000 capital stock. C. C. Thomas is president; R. J. Wright, vice-president, and D. W. Persinger, secretary.

WEST VIRGINIA.

Brooke County—Coal Mining.—The Rex Carbon Coal Co. of Pittsburg, Pa., recently organized, has purchased 4000 acres of coal land in Brooke county at \$400,000 and will arrange at once for its development. Contracts have already been let for the erection of necessary mine buildings, tipples, etc. George McNelly of Pittsburg, Pa., is engineer in charge. The mines will have a daily output of 1000 tons.

Fairmont—Oil Wells.—Mississippi Valley Oil Co. has incorporated, with \$10,000 capital stock, to drill for oil; incorporators, O. S. McKinney, Geo. W. Fleming of Fairmont, Wm. A. Ohley, R. G. Quarrier of Charleston, W. Va., and associates.

Grafton—Gas-pipe Line.—R. W. Kennedy and associates have secured franchise for furnishing the city with natural gas, for which they were previously mentioned as having applied, and a company will be organized to operate the plant.

Huntington—Natural-gas Wells and Pipe Lines.—The Triple State Gas Co., capitalized at \$3,000,000, and the Kanawha Gas Co., capitalized at \$800,000, supplying natural gas to Huntington, Charleston and other West Virginia cities, have merged into the United States Natural Gas Co., with a capitalization of \$8,000,000. The directors of the new company are E. H. Gary, Max Pam and J. E. French of New York, P. S. Grosscup and W. O. Johnson of Chicago, Charles Miller and O. D. Bleakley of Franklin, Pa. The company has under lease 124,000 acres of land. A 17-inch main will be laid to Portsmouth and a 19-inch main to Huntington. (These companies recently reported.)

Monitor—Telephone System.—J. A. Cook of Monitor, B. A. Shirey, E. R. Lynch, H. O. Lynch, W. O. Givens of Kennan, W. Va., and associates have incorporated the Farmers' Union Telephone Co. with \$10,000 capital stock to operate telephone systems in the counties of Monroe, Greenbrier, Pocahontas, Summers and Fayette.

Parkersburg—Construction Company.—The Vaughan Supply & Roofing Co. has been incorporated with \$25,000 capital stock by Edgar A. Vaughan, Susan M. Vaughan, William C. Vaughan and Flora Vaughan.

Ronceverte—Beverage Factory.—L. M. Hogg, E. W. Hutchinson, T. C. Fry, Geo. W. Gibbs and U. H. Slack have incorporated the Ronceverte Bottling Co., with \$10,000 capital stock, to manufacture carbonated and non-alcoholic drinks.

Tunnelton—Mercantile.—G. W. Beaver and associates have incorporated the Tunnelton Supply Co. with \$8000 capital stock.

Upland—Telephone System.—Dr. James H. Rowsey, H. E. Ball, A. G. Young, C. G. Ball and C. E. Melton have incorporated the Frazer's Bottom, Upland & Glenwood Telephone Co. with \$5000 capital stock to construct and operate telephone system.

Wheeling—Land Improvement.—Loveland Improvement Co. has been incorporated with \$15,000 capital stock by George Bell, George Cook, A. Korn, George W. Eckhart and W. H. Anderson. This company was previously referred to as to organize company and acquire 58 acres of land, dividing it into building lots.

Wheeling—Coal Mining.—Incorporated: H. L. Seabright Company, with \$25,000 capital stock, by Henry L. Seabright, Charles H. Seabright, Henry A. Nolte and associates, to mine coal, etc.

Zenith—Coal Mines, Coke Ovens, etc.—The Zenith Coal & Coke Co. is installing the most modern equipment in its coal mines and is also arranging for the construction of 100 coke ovens.

INDIAN TERRITORY.

Coalgate—Water-works.—City contemplates issuing \$42,000 of bonds for the construction of water-works. Address The Mayor.

Madill—Electric-light Plant.—F. W. Porter of Whitehall, Wis., has franchise (pre-

viously reported applied for) to construct electric-light plant.

Paoli—Cotton Gin.—C. R. Du Bond of Sulphur Springs, Texas, will rebuild cotton gin recently burned.*

Tahlequah—Oil and Mineral Lands.—Reports state that George R. Smith and Alva Lee are arranging for the development of oil and mineral lands in Tahlequah.

OKLAHOMA TERRITORY.

Blackwell—Improvement Company.—Binger Improvement Co. has been incorporated, with \$30,000 capital stock, by J. J. Carrin, George M. Carson, F. H. Robertson and J. A. Carson.

Byron—Telephone System.—The Byron Rural Telephone Co. has been incorporated, with \$1000 capital stock, by H. B. Holderby, M. Sluder and W. M. McRay.

Foss—Telephone System.—The Foss Mutual Telephone Co. has been incorporated, with \$4500 capital stock, by W. J. Lawson, W. F. Cantelou, C. F. Hartrout, J. H. Ford and George C. Mayor.

Guthrie—Mining Company.—The Golden Eagle Placer Mining Co. of Guthrie and Portland, Ore., has been incorporated, with \$500,000 capital stock, by G. V. Pattison of Guthrie, James M. Connor and C. L. Derby of Portland, Ore.

Guthrie—Contracting Company.—Charles H. Woods, Milton D. Henry of Guthrie, J. E. Hutt, Peter Laptad, Edward F. Hutt of Lawrence, Kan., and associates have incorporated the J. E. Hutt Contracting Co., with \$50,000 capital stock.

Lawton—Flour Mill.—Reports state that the Humphreys Mill & Elevator Co. has purchased site on which to erect 150-barrel flour mill.

Norman—Bridge Company.—Incorporated: The Norman & Chickasaw Bridge Co., by D. L. Larsh, D. M. Winans, S. P. Pender, F. J. McGinley and associates; capital stock \$15,000.

Norman—Agricultural and Land Company.—M. Greissner, Roscoe J. Morgan of Norman, Edward L. Spurck of Park River, N. D.; George N. Grisby and George T. Spurck of Peoria, Ill., have incorporated the Mexican Agricultural & Land Co., with \$150,000 capital stock.

Okeene—Ice Factory and Electric-light Plant.—Okeene Ice & Light Co. is the name of a company recently mentioned as being organized by H. A. Hastings of Okeene and J. E. Levers of Enid, O. T., with \$15,000 capital stock, to establish ice factory and electric-light plant.

Oklahoma City—Lumber Company.—The J. W. Graves Lumber Co. has been incorporated, with \$30,000 capital stock, by J. W. Graves and associates.

Oklahoma City.—Incorporated: The J. G. Leeper Lumber Co., with \$20,000 capital stock, by J. G. Leeper, A. S. Leeper of Oklahoma City and C. S. Leeper of Sulphur Springs, I. T.

Oklahoma City—Chemical Works.—The Pneumophthysine Chemical Manufacturing Co. has been incorporated, with \$25,000 capital stock, by Dr. Samuel A. Gotcher, Oro O. Teeter of Hobart, O. T.; Fred S. Gum and Lester B. Gum of Perry, O. T.

Olustee—Mill and Gin.—Incorporated: The Olustee Mill, Gin & Fuel Co., with \$20,000 capital stock, by L. J. Cannon, J. W. Dickey, J. C. Belt, E. E. Jones, J. M. Carthal, O. G. Lawson and A. Montgomery.

Optima—Irrigating Company.—Incorporated: The J. W. Ansley Irrigating Co., by A. C. Bradshaw of Optima, J. W. Ansley and Warren Keene of Guymon, O. T.

Orlando—Telephone System.—H. C. Arnold, E. E. Cowman and D. L. Kinneman have incorporated the German-American Telephone Co., with \$5000 capital stock.

Stillwater—Oil and Gas Wells.—Dale Lyton, Louis N. Jerome and C. L. Burdick have incorporated the Council Creek Oil & Gas Co., with \$1,000,000 capital stock, to drill for oil and gas.

Stroud—Oil, Gas and Mineral Company.—The Stroud Oil, Gas & Mineral Co. has been incorporated, with \$200,000 capital stock, by J. W. Hockaway, John W. Donaldson, J. A. Meinicke, George T. Rhoades, John E. Schubert, John Smith, Fred Bearley and H. M. Jarrett, to prospect for oil, gas and other minerals.

Stroud—Light and Power Plant.—A. H. Sherwood, Lee Patrick, H. M. Jarrett, J. T. Haynes of Stroud and Sam R. Flores of Oklahoma City, O. T., have incorporated the Stroud Light & Power Co., with \$15,000 capital stock.

Woodward—Water-works.—City has granted franchise to Chas. A. Smith, 53 Jackson Building, Denver, Col., to install system of water-works to cost \$50,000.

BURNED.

Alexandria, Va.—Virginia Glass Co.'s plant. Baltimore, Md.—Warehouse of Fairbanks Scale Co., 314 North street; loss \$12,000.

Belton, Texas.—Grand Opera House; loss \$25,000.

Birmingham, Ala.—Industrial School of St. Mark's Episcopal Church (colored); loss \$15,000. Address Rev. C. W. Brooks.

Burnsville, W. Va.—J. V. Fidler & Son's wagon factory, machine shop and grist mill.

Carlisle, Ky.—The Citizens' Electric Light Co.'s plant; loss \$10,000.

Chelsea, I. T.—Cherokee Oil & Gas Co.'s power-house.

Crossville, Tenn.—Cumberland county courthouse. Address County Judge.

Edwards, Miss.—The Howell Hotel; loss \$5000.

Engle, Texas.—Adolph Krenek's cotton gin and grist mill.

Enid, O. T.—Denver, Enid & Gulf Railroad Co.'s car sheds; loss \$15,000. Address J. Overholt, general superintendent.

Haile Gold Mine, S. C.—Buildings and machinery at Haile gold mine; loss \$30,000. Address Ernest Thela.

Hopkinsville, Ky.—W. L. Gore's creamery.

Knoxville, Tenn.—United States Marble Co.'s plant; loss \$15,000.

Manassas, Va.—The Manassas Industrial School.

McComb, Miss.—The Hanford Hotel; loss \$20,000.

Montgomery, Ala.—Duncan May's bakery; damaged \$5000.

New Orleans, La.—The Macheca Building, Canal street; loss about \$100,000.

Paden City, W. Va.—G. W. Lazear's planing mill.

Savannah, Ga.—McMillan Bros.' copper works.

Sedalia, Ky.—Ray Bros.' flour mill.

Warsaw, Ky.—J. H. McDannell's Sons Company's planing mill and furniture factory; loss \$25,000.

Washington, Ark.—J. D. Lanier's cotton gin; loss \$5000.

West Palm Beach, Fla.—The Commercial Hotel.

Winchester, Ky.—Scobee-Williams Company's spoke and handle factory; loss \$30,000.

BUILDING NOTES.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Atlanta, Ga.—Store Building.—Asa G. Candler has purchased site at 165 Peachtree street, and is reported as to erect seven or eight-story store building.

Baton Rouge, La.—Masonic Temple.—L. M. Weathers Company, Memphis, Tenn., has completed plans for proposed Masonic Temple; structure to be three stories, of brick with stone trimming, metallic cornice, and cost \$25,000. Contract for the construction will shortly be let.

Baumont, Texas.—Hotel.—Local capitalists are having plans prepared by F. W. Steinmann for the erection of five-story hotel building to cost \$100,000.

Binghamton, Tenn.—Hotel.—The National Hotel Co. is reported as having plans prepared for hotel.

Birmingham, Ala.—Dwellings.—Louis V. Clark has permit to erect two three-story dwellings at 214-216 North 20th street.

Cartersville, Ga.—Bank Building.—Bank of Cartersville, John S. Leak, president, is arranging for the erection of building of white pressed brick with marble and plate-glass front.

Charleston, S. C.—Lodge Building.—Chartered: Knights of Columbus Building Co., with \$10,000 capital stock, by Daniel J. O'Brien, C. J. Murphy and C. J. Redding, to erect lodge building.

Chattanooga, Tenn.—Dwelling.—D. P. Montague has had plans prepared by Mende & Garfield, Cleveland, Ohio, for \$20,000 brick residence reported last week to be erected. Contract for construction will be let early in March.

Coalgate, I. T.—School Building.—City contemplates issuing \$20,000 of bonds for the erection of school building. Address The Mayor.

Columbus, Ga.—Store and Office Building.—Barlow Bros. have contract to erect three-story brick building for Thomas Gilbert previously reported. T. W. Smith & Co. prepared the plans.

Columbus, Ga.—Dwelling.—Mrs. Emma J. Griffin of Florida has had plans prepared by T. W. Smith & Co. for a two-story residence, and contract for construction will shortly be let.

Corsicana, Texas.—Courthouse.—Navarro county is arranging for the erection of proposed courthouse, for which \$150,000 of bonds was recently voted. Address County Judge.

Cullman, Ala.—Courthouse Improvements and Jail.—Cullman County Commissioners have engaged W. S. Hull of Jackson, Miss., to prepare plans and specifications for extension and improvements to courthouse and for a new jail building.

East Lake, Ala.—Scientific Hall.—It is reported that a \$15,000 scientific hall will be erected at Howard College.

Elkins, W. Va.—Association Building.—The Young Men's Christian Association contemplates the erection of \$30,000 building.

Elkins, W. Va.—Business Building.—Heavner Bros. are having plans prepared by A. C. Lyons of Fairmont, W. Va., for three-story business building, 50x100 feet, of pressed brick, limestone and terra-cotta, steelwork and tiling, to be equipped with electric lights, etc.

Elkins, W. Va.—Bank Building and Opera-house.—Dr. L. W. Talbott contemplates the erection of bank building and opera-house.

Eudora, Ark.—Hotel.—C. C. Parkman has let contract to W. P. Lamb for rebuilding hotel recently reported burned; structure to be 46x72 feet and cost about \$5000.

Florence, S. C.—Store and Warehouse.—The United Grocery Co., organized with \$10,000 capital and J. F. Stackley, president, has purchased site on which to erect store building and warehouse.

Fort Howard, Md.—Officers' Quarters, Barracks, etc.—Nankin Construction Co., Richmond, Va., has contract to erect officers' quarters, barracks, etc., previously reported. Contract for the heating apparatus has been awarded to the John A. Danforth Company, Buffalo, N. Y.

Green Spring Valley, Md.—Dwelling.—Joseph Friedenwald, president Crown Cork & Seal Co., 1511-1523 Guilford avenue, Baltimore, Md., has commissioned Charles M. Anderson, architect, 324 North Charles street, Baltimore, Md., to prepare plans and specifications for dwelling; structure to be one and one-half stories high, 40x40 feet, frame construction on stone foundation, shingle roofing, electric wiring and fixtures, sanitary plumbing, heating system.

Greensboro, N. C.—Store Building.—R. G. Glenn has purchased site on which to erect two-story building, 40x120 feet.

Hannibal, Mo.—Hotel.—Mark Twain Hotel Co. is the correct title of company previously reported incorporated by George W. Dulancy and associates to erect hotel. The company is having plans prepared by Barnett, Haines & Barnett, Triest Building, St. Louis, Mo., for four-story building, 70x140 feet, to cost \$90,000.

Hot Springs, Ark.—School Building.—City contemplates erecting \$75,000 high-school building. Address George B. Cook, superintendent.

Hyattsville, Md.—Dwelling.—Dr. Charles A. Wells, it is reported, will erect residence.

Kansas City, Mo.—Union Depot.—Reports state that the Kansas City Union Depot Co. has about completed arrangements for the erection of proposed union depot. B. L. Winchell, president Chicago, Rock Island & Pacific Railway, Chicago, Ill., is chairman of board.

Knoxville, Tenn.—Store Building.—A. B. Fry is preparing plans for store building reported last week to be erected by T. W. Keller, 406 Jackson avenue; structure to be three stories, 50x100 feet.*

Lake Village, Ark.—Courthouse.—Frank W. Gibb of Little Rock, Ark., has been engaged to prepare plans for Chicot county's \$40,000 courthouse previously mentioned.

Laurel Bloomery, Tenn.—Association Building, etc.—Geo. H. Robinson wants to correspond with architects relative to the construction of residences, store buildings, academy and Odd Fellows' hall.

Louisville, Ky.—Car Barn.—Reports state that the Louisville & Interurban Railway Co. has purchased site on which to erect car barn.

Louisville, Ky.—Theater, Pavilion, etc.—Fountain Ferry Park Co., reported last week as having plans prepared by D. X. Murphy & Bro. for theater, pavilion, etc., at Fountain Ferry Park, has let contract to Jos. Libler & Co. for the erection of the necessary buildings; about \$125,000 will be expended.

Louisville, Ky.—School Building.—School Board contemplates erecting addition to the Central High School at a cost of \$10,000.

Lynchburg, Va.—Office Building.—C. W. Hancock & Sons, who are erecting the rear portion of the Krise Building, have contract to build the main portion, which will be seven stories, 43x130 feet, of fireproof construction, equipped with steam heat, electric and gas lights. Frye & Chesterman prepared the plans.

Meridian, Miss.—Depot.—Meridian Terminal Co., C. C. Harvey, New Orleans, La., president, will let contract about March 20 for the erection of union depot for which Frank P. Milburn, Columbia, S. C., was previously reported as preparing plans; structure to be 45x200 feet and cost about \$200,000.

Mobile, Ala.—Church.—Nicol & Leggee have contract to erect edifice, previously reported, for the First Christian Church after plans by A. McCrary; structure to be of brick veneer, 50x76 feet, equipped with hot-air heating plant, electric lights, etc., and cost \$15,000.

Mobile, Ala.—Hotel.—Dispatches state that the Battle House, reported burned last week, will be rebuilt, and that Guy Stone of Stone Bros., architects, New Orleans, La., has been engaged to prepare plans for a six-story building.

Mobile, Ala.—Hotel.—Frank A. Hervey and Charles B. Hervey, it is reported, will erect hotel at a cost of \$550,000.

Mountain Lake Park, Md.—Residence.—H. Gordon of Cumberland, Md., will erect dwelling.

Natchez, Miss.—Postoffice.—The Mankin Construction Co., 812 East Main street, Richmond, Va., is the lowest bidder at \$34,164 for the erection of proposed postoffice.

New Albany, Miss.—Board of Supervisors of Union county, New Albany, Miss., will open bids March 9 for the erection of jail (complete) according to plans and specifications on file in office of C. S. Cullens, chancery clerk, New Albany. Usual rights reserved.

New Orleans, La.—Hotel Improvements.—It is reported that about \$250,000 will be expended in remodeling and improving the Hotel Royal. D. Mercier can give information.

New Orleans, La.—Wharf.—Sealed bids will be received until March 25 at the bureau of yards and docks, Mordcaï T. Endicott, chief, Navy Department, Washington, D. C., for constructing a steel and timber wharf at the naval station, New Orleans, La.; funds available \$42,000. Plans and specifications can be seen at the bureau or naval station, New Orleans.

New Orleans, La.—Hotel.—Reports state that Andrew Dacovich would rebuild hotel recently burned.

New Orleans, La.—Store-building Improvements.—Fuerst & Kramer are reported as having leased building at 838 Canal street, and will remodel at a cost of \$20,000.

Oakland, Md.—Jail and Sheriff's Residence. The jail and sheriff's residence, for which Holmboe & Laferty, Clarksburg, W. Va., were reported last week as preparing plans, will be 42x90 feet and cost \$50,000. Bids will be received as soon as plans are completed.

Pelham, Ga.—Church.—Bids will be received for the erection of \$15,000 edifice for the First Baptist Church. Plans can be seen at office of G. W. Milligan, architect, Moultrie, Ga., or at the office of the Hand Trading Co., Pelham. Certified check for \$100 must accompany each bid. Usual rights reserved.

Pensacola, Fla.—Bank and Office Building. Ausfeld & Chapman have prepared plans for eight-story fireproof bank and office building reported last week to be erected by the First National Bank.

Richmond, Va.—Church.—The Mankin Construction Co., 812 East Main street, is the lowest bidder for the erection of proposed \$42,000 edifice for the Church of the Covenant. Barney & Chapman, New York, N. Y., prepared the plans.

Shawnee, O. T.—Library Building.—Bids will be received by the Library Directors, Shawnee, until February 24 for \$15,000 Carnegie Library building. Certified check of 5 per cent. of amount of bid is required; architects, S. Wemyss-Smith, Fort Worth, Texas, and Peters & Nethercot, Shawnee, O. T.

Shenandoah Junction, W. Va.—Hotel.—L. J. Virts is reported as to erect hotel.

Slidell, La.—Bank Building.—Covington (La.) Bank & Trust Co., previously reported as having purchased site on which to erect building, has adopted plans for a brick building, 45x60 feet, to cost \$5000.

Spartanburg, S. C.—Opera-house.—It is reported that I. H. Greenwald will organize stock company to erect opera-house.

Springfield, Tenn.—Tobacco Warehouse.—The Farmers' Warehouse Co. has purchased site on which to erect proposed tobacco warehouse.

Springfield, Tenn.—Store Building.—Dullin, Glenn & Co. will erect three-story steel and pressed-brick building.

Staunton, Va.—School Building.—R. S. Clark is the lowest bidder at \$44,107 for the erection of school and dormitory building for the Staunton Military Academy previously reported.

St. George, S. C.—Store Building.—L. A. Lauber will erect store building.

St. Louis, Mo.—Building.—J. L. Howard, 620 Chestnut street, is preparing plans for building previously reported to be erected by the Columbia Transfer Co.; structure to be four stories, 90x120 feet, slow combustion, equipped with steam heat, electric lights; electric freight elevator and sectional boilers will be installed; cost \$55,000.

St. Louis, Mo.—Business Building.—St. Louis Storage Co., previously reported incorporated with \$25,000 capital stock, is erecting five-story building.

St. Louis, Mo.—Store and Flat Building.—John Cavanaugh has purchased site on which to erect store and flat building.

St. Louis, Mo.—Store Building.—Stix, Baer & Fuller (Grand Leader) Dry Goods Co. has purchased the Lindell Hotel site and is having plans prepared by Mauran, Russell & Garden for an eight-story fireproof building having 45,000 square feet of floor space and costing \$1,500,000. Fifteen elevators will be installed, together with filter plant, sprinkler system, pneumatic tubes and all modern appliances. It is stated that the Westlake Construction Co. has been awarded the contract for erection.

Sulphur Springs, Texas.—School Building.—The Board of Education has accepted plans for proposed school building; to be of brick veneered with terra-cotta, two stories, 65x100 feet, and cost \$16,000.

Vienna, Ga.—Hotel.—J. P. Heard, A. E. Walton and M. P. Hall contemplate organizing stock company to erect \$15,000 hotel.

Washington, D. C.—Building.—The George A. Fuller Company has contract reported last week for the erection of building for the Washington Times; structure to be 11 stories, 70x159 feet, and cost \$450,000. McKim, Mead & White, 160 Fifth avenue, New York, N. Y., prepared the plans.

Waycross, Ga.—City Hall.—City contemplates erecting city hall. Address The Mayor.

Winchester, Ky.—School Building.—It is reported that the Kentucky Wesleyan College, burned at a loss of \$75,000, will be rebuilt.

Winston-Salem, N. C.—Hotel.—T. W. Hanes has purchased site on which to erect four-story hotel building.

RAILROAD CONSTRUCTION.

Railways.

Austin, Texas.—Mr. Jeff N. Miller, vice-president and general manager of the St. Louis, Brownsville & Mexico Railway, is reported as saying that the company has purchased the Trinity & Brazos Valley Railway, extending from Cleburne to Mexia, Texas, 89 miles, and will carry out the plan to extend it to Houston and also to extend from the other end to Fort Worth. R. H. Baker is general manager of the Trinity & Brazos Valley at Austin, Texas.

Bald Mountain, N. C.—The Caney River Railway has, it is reported, completed its line to Hunteale.

Beaumont, Texas.—The Beaumont Transportation Co. will, it is reported, build a railroad from Voth to Saratoga, about 25 miles. The company was lately incorporated by J. F. Keith, B. R. Norvell and W. C. Tyrrell. The Keith Lumber Co. is said to be interested. Mr. Keith is quoted as saying that about three miles have been built and it is the intention to build only about five miles at present. The line will be used only for lumber purposes.

Beaumont, Texas.—Reported that the Gulf & Interstate Railway is preparing to extend its line. L. L. Featherstone is superintendent at Beaumont.

Birmingham, Ala.—Agee & Co. of Birmingham have, it is reported, been awarded a contract to build three miles of line for the Southern Railway from Mobile Junction to connect with the Ensley line.

Campton, Ky.—The Campton Railway Co. has, it is reported, been incorporated to build an electric railway from Campton to connect with the Lexington & Eastern Railroad near Glencairn.

Charlotte, N. C.—Reported that about four and one-half miles of grading have been completed by E. L. Propst of Charlotte on the railway from Thomasville via Denton to the narrows of the Yadkin river. Material is on the ground for 18 miles of track.

Chicago, Ill.—A report from Little Rock

says it is announced that the Rock Island system will build a line from Traskwood in Saline county, Arkansas, to Crossett in Ashley county, Arkansas, 108 miles, and that contract will be let shortly. W. L. Darling is chief engineer at Chicago.

Chicago, Ill.—Mr. Thomas P. McDonough, president of the proposed Kansas City, Nevada & Springfield Railroad, 211 Tacoma Building, writes the Manufacturers' Record that the line proposed is from Nevada, Mo., through Vernon, Cedar, Dade and Greene counties to Springfield, Mo., and survey will be made for permanent location as soon as weather permits.

Chicago, Ill.—The Chicago, Rock Island & Pacific Railway will, it is reported, enlarge its yards at Shawnee, O. T. W. L. Darling is chief engineer at Chicago.

Dallas, Texas.—An officer of the Texas & Pacific Railway writes the Manufacturers' Record that the company may build from Millville to Simmsport, La., via the right bank of the Atchafalaya river, a distance of about 22 miles. The engineer has not yet been assigned to the work. A start may be made about April 1. B. S. Wathen is chief engineer at Dallas, Texas.

Durham, N. C.—Mr. R. H. Wright writes the Manufacturers' Record that the proposed electric railway from Durham to Chapel Hill would be about 12 miles long, but its construction depends upon the removal of several obstacles, including disuse of the present steam road from Chapel Hill to University Station.

Galveston, Texas.—Mr. M. A. Low of Galveston gives notice that application will be made to the legislature for permission to build terminals for the Chicago, Rock Island & Gulf Railway on property between Block 710 and 716 on the harbor front. W. L. Darling is chief engineer at Chicago, Ill.

Galveston, Texas.—Reported that the Santa Fe system is surveying for a line from Texico, on the Pecos Valley division, via Abilene to Brownwood, Texas. C. F. W. Felt, chief engineer at Galveston, may be able to give information.

Jackson, Tenn.—Plans to build a railroad from Jackson to Dyersburg and thence to the Mississippi river are being considered. Among those interested are F. B. Fisher, R. F. Spraggins and W. H. Biggs.

Jefferson, Texas.—A stockholders' meeting of the Jefferson & Northeastern Railway Co. has been called for April 24 to increase the capital from \$20,000 to \$25,000. It was recently reported that the company would build an extension of 25 miles. A. D. Clark is president.

Knoxville, Tenn.—Reported that W. J. Oliver & Co. of Knoxville have been awarded a contract to build second track for the Southern Railway from Armour to Howell, on the Southern Railway's line from Knoxville to Atlanta.

Louisia, Ky.—Reported that a survey for a railway is being made by J. C. Thomas to coal lands owned by R. M. Broas on Rockcastle creek.

Louisville, Ky.—The Louisville, Henderson & St. Louis Railroad is reported to have in view plans to build a line from West Point to a point three miles from Louisville in order to avoid use of another company's tracks. A. M. McCracken is general superintendent.

Manistee, Ala.—The Manistee & Repton Railroad is reported to have completed its six-mile extension from Shiversville to Monroeville.

McKinney, Texas.—Mr. Hunter Woodson, promoter of the proposed electric railway from McKinney to Bonham, is reported as saying that a line out of McKinney will positively be constructed, work beginning very soon.

Memphis, Tenn.—Application has been made in Mississippi for a charter for the Pensacola & Memphis Air Line Railway. H. J. Forsdick, president of the Memphis Commercial Club, and J. W. Buchanan, attorney at Memphis for the Frisco system, are among the incorporators. The route is from Memphis via Water Valley and Meridian, Miss., to Pensacola.

Portsmouth, Va.—According to a dispatch from Spartanburg, S. C., the Seaboard Air Line is considering a proposition to build a line from Rutherfordton, N. C., to Spartanburg, about 40 miles, or else to connect with that place by building another line from Carlisle.

Raleigh, N. C.—The senate has, it is reported, passed a bill to charter the Edgecombe Railway.

Raleigh, N. C.—A bill has been introduced in the legislature to charter the Raleigh & Southport Railway.

Roanoke, Va.—Reported that the Norfolk

& Western Railway has incorporated the West Virginia & Ironton Railroad for the purpose of straightening its line from Vivian to Naugatuck, 32 miles. C. S. Churchill is chief engineer at Roanoke. Later information received by the Manufacturers' Record from an official is that the proposed change will come about in the future in connection with double-track work, for which, in that section, arrangements are not yet made.

St. Louis, Mo.—Reported that the Missouri, Kansas & Texas Railway will build independent terminal yards at Kansas City. S. B. Fisher is chief engineer.

St. Louis, Mo.—The Missouri Pacific Railway is reported to be pushing work on the White-river extension, endeavoring to have it opened for business August 1.

St. Louis, Mo.—The Big River Construction Co., A. T. Smith of St. Louis, president, has applied for a franchise for a railroad from South St. Louis, crossing the Meramec river at Fenton, the reported purpose being to reach Bismarck, Mo., about 100 miles from St. Louis.

Salisbury, N. C.—Reported that the American Gas & Electric Co. of Providence, R. I., has bought an interest in the Salisbury & Spencer Railway Co. and will complete its line.

Stewartstown, Pa.—The Stewartstown Railroad Co. will, it is reported, build a nine-mile line to Fawn Grove, partly in Pennsylvania and partly in Maryland. M. W. Bahn is vice-president and general manager.

Sutton, W. Va.—The Grassy Creek Railroad Co. of Diana, W. Va., has been incorporated to build a line from the Summit, between Elk and Holly rivers, to Pickens, W. Va., about 18 miles. The incorporators are R. M. Smith of Heaters, W. Va.; J. H. P. Smith of Parkersburg, W. Va.; J. L. Fisher, Chas. J. Hyer and Fred L. Fox, all of Sutton, W. Va.

Vinita, I. T.—F. A. McClelland, promoter of the proposed Vinita & Northwestern Railway, is reported to be planning for an extension southeast from Victoria to Fort Smith. The survey northwest to Coffeyville is being pushed by Chief Engineer F. G. Jonah.

Washington, D. C.—A report from Knoxville, Tenn., says that the Southern Railway contemplates building extensive yards at Middleshoro, Ky. W. H. Wells is engineer of construction.

Washington, D. C.—A report from Greensboro, N. C., says that engineers for the Southern Railway have completed survey for double track between Greensboro and High Point, N. C., and also between Danville, Va., and Pelham, the purpose being to award the contract soon. W. H. Wells is engineer of construction at Washington.

Wilmington, N. C.—The Waccamaw Land & Lumber Co. writes the Manufacturers' Record that it has not yet started work on the Southport & Northwestern Railroad, nor can it now be stated when construction will begin. The line was recently chartered through John D. Bellamy, counsel.

Winchester, Ky.—Mr. J. M. Pickrell, general manager, writes the Manufacturers' Record that all the property of the Frankfort & Versailles Traction Co. of Frankfort has been purchased by him and associates. They will immediately begin extensive improvements on street railway, and will also build an electric line to Versailles, 15 miles. They are in the market for contracts.

Street Railways.

Algiers, La.—Mr. Leigh Carroll, president of the Algiers Water-Works & Electric Co., has, it is reported, purchased the Jefferson Electric Street Railway franchise at Gretna. Mr. Carroll already owns a franchise from the New Orleans parish line to the McLellan docks, and these two franchises will, it is said, be used to provide a continuous line of electric railway in Algiers, Gretna and McDonoghville. James Dinkins is also said to be interested.

Ardmore, I. T.—Mr. D. B. Lester, vice-president of the Commonwealth Land & Trust Co., writes the Manufacturers' Record that the city council has granted to him and others a street-railway franchise. His associates are Richard M. Lester, C. M. Joiner and John W. Hoffman, who are, respectively, secretary, president and treasurer of the trust company.

Baton Rouge, La.—Application has been made to the city council by R. A. Hart of Baton Rouge and associates for an electric street railway franchise to South Baton Rouge.

Charlotte, N. C.—Reported that the Charlotte Consolidated Construction Co. will build a loop about half a mile long. E. D. Latta is president.

Norfolk, Va.—The Norfolk Railway & Light

Co. has, it is reported, applied for an electric-railway franchise in Elizabeth City, N. C., proposing in time to also build a line connecting Elizabeth City with Norfolk. Among those reported interested are T. B. Sawyer and G. J. Jennings of Norfolk.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Agricultural Implements.—Chas. E. Davis, 165 Sheffield avenue, Chicago, Ill., is in the market for a machine to take the outside or hard shell off cornstalks, so that the pith or inside can be used for some purpose.

Barytes Machinery.—See "Mining Machinery."

Blacksmith Tools.—See "Wagon-factory Machine."

Blowers.—Union Trunk & Bag Co., Richmond, Va., wants prices on blowers.

Boiler.—See "Engine and Boiler."

Boiler.—J. B. Ramsey, Seabree, Ky., will be in the market for a boiler.

Boiler.—See "Engine and Boiler."

Boiler.—See "Engine and Boiler."

Boilers.—See "Gas plant Equipment."

Boilers.—See "Engines and Boilers."

Boilers.—See "Engines and Boilers."

Boilers.—See "Engines and Boilers."

Boilers.—See "Engines and Boilers."

Boilermakers' Machinery.—The R. D. Cole Manufacturing Co., Newnan, Ga., is in the market for boilermakers' rolls to bend a plate one inch thick, 10 feet wide, and a boiler-makers' radial drill with a four or five-foot arm.

Bottles.—See "Bottling-works Equipment."

Bottling-works Equipment.—Piedmont Mineral Springs Co., Gaffney, S. C., wants prices on complete equipment for bottling works, including all kinds of bottling machinery, bottles, carboys, mineral-water barrels, hydraulic rams, piping, etc.

Boxes.—Sanitarium Tablet Co., Newport, Tenn., wants prices on tin and paper boxes.

Box Machine.—Union Trunk & Bag Co., Richmond, Va., is in the market for box machine for driving nails.

Bridge Construction.—Frankfort & Versailles Traction Co. wants to correspond with contractors relative to the construction of a bridge across the Kentucky river near Frankfort. Address James M. Pickrell, general manager, Winchester, Ky.

Brick Manufacturers.—Martin & Woodruff, Southern Bank Building, Meridian, Miss., want addresses of manufacturers of paving brick.

Building Equipment and Supplies.—McIver & MacKay, P. O. Box 598, Ocala, Fla., wants prices on press brick, marble, Indiana limestone, stucco, ceramic, mosaic tiling, roof tiling, galvanized-iron work, metal ceilings, slate, cement, etc.

Building Equipment and Supplies.—A. J. Cloyd, Knoxville, Tenn., wants prices on iron windows and wireglass, structural steel, I beams and channels.

Building Materials.—Whitesburg Printing Co., Whitesburg, Ky., wants prices on building materials.

Building Materials.—Crown Lumber & Manufacturing Co., 617 Prince street, Knoxville, Tenn., wants prices on building materials.

Building Materials.—Mannington Coal & Coke Co., Mannington, Ky., wants prices on building materials; J. B. Williams, president, Frostburg, Md.

Brass Foundry.—See "Foundry."

Canal Construction.—Sewerage and Water Board, 602 Carondelet street, New Orleans, La., will open bids April 25 for construction of 16,000 lineal feet of wood-lined canals and laying 15 miles of water pipe. Canal work will consist of 775,000 feet B. M. creosoted pine lumber, 1,370,000 feet B. M. yellow-pine and cypress lumber, 143,000 lineal feet yellow-pine piling, 145,000 cubic yards excavation, 390 cubic yards concrete, 21,000 pounds steel

rods. Work will be divided into two contracts. Two other contracts will include hauling and laying of 15 miles of cast-iron water pipe and furnishing and laying of 4000 feet of railroad track. Water pipe to be mainly from 16 to 48 inches in diameter, aggregating about 13,000 tons. Certified check for \$1500 on a New Orleans bank must be deposited with F. S. Shields, secretary of Board. Specifications, general plans and blank forms of proposal on application. Usual rights reserved; Geo. G. Earl, general superintendent.

Canning-factory Equipment.—F. F. Wiley, John Mutze and Andy Lowery, Edinburg, Ind., wants prices on machinery and equipment for canning factory to can corn, tomatoes, beans and pumpkins.

Castings.—See "Foundries."

Cement.—See "Building Equipment and Supplies."

Cold-tire Shrinker.—See "Wagon-factory Machine."

Concrete Mixers.—C. E. Bathrick, 151 15th street, Harvey, Ill., wants catalogues and other information on concrete mixers; to file for reference.

Contractors' Equipment.—F. M. Hicks & Co., 285 Dearborn street, Chicago, Ill., are in the market for a locomotive crane and ballast spreader, also a rapid unloader.

Contractors' Wagons.—Isthmian Canal Commission, Washington, D. C., will open bids February 28 for furnishing five contractors' wagons. Further particulars can be obtained on application.

Corn-pith Machine.—See "Agricultural Implements."

Cotton-gin Equipment.—C. R. De Bond, Sulphur Springs, Texas, will be in the market in about 60 days for machinery for cotton gin, including engine and boiler.

Crate Machinery.—D. B. Lancaster & Co., Lumber Bridge, N. C., want prices on new or good second-hand resaw, mortisers and tenoners for making cantaloupe and corn crates.

Dry-kiln.—Royster Manufacturing Co., Bullock, N. C., wants dry-kiln, 5000 or 8000 feet daily capacity; second-hand preferred.

Electrical Equipment.—Mannington Coal & Coke Co., Mannington, Ky., wants prices on electrical equipment; J. B. Williams, president, Frostburg, Md.

Electrical Equipment.—Peacock's Iron Works, Selma, Ala., is in the market for a 50-light dynamo.

Electrical Equipment.—Pelican Biscuit Co., Memphis, Tenn., wants prices on electrical equipment.

Electrical Equipment.—J. N. Hall, president of the Baptist Publishing Co., Fulton, Ky., will be in the market for motor for operating printing machinery.

Electrical Equipment.—Richard Lamb, C. E., 136 Liberty street, New York, N. Y., is in the market for dynamo, wire; also two 500-light generators complete with boilers, engines, wire, lamps, etc.; all second-hand.

Electrical Equipment.—Melver & MacKay, P. O. Box 598, Ocala, Fla., wants quotations on electric wiring.

Electrical Equipment.—Memphis Artesian Water Department, Lawrence Simpson, general superintendent, Memphis, Tenn., will open bids February 28 for furnishing five electric alternating-current motors to operate certain pumps of the Memphis Artesian water department, 1000 five-eighths-inch meters with proper connections f. o. b. Memphis, 1000 cast-iron meter boxes to be delivered at office of water department, models of which can be seen at 53 North 2d street. Specifications of motors furnished on application. Usual rights reserved.

Electrical Equipment.—Susquehanna Roofing Manufacturing Co., Cly, Pa., want to purchase two 100-horse-power and two 50-horse-power each electric motors; second-hand preferred.

Electrical Equipment.—Sanitarium Tablet Co., Newport, Tenn., wants prices on electrical equipment. (See "Printing Equipment.")

Electrical Equipment.—Savannah Lighting Co., Montgomery street extended, Savannah, Ga., wants prices on outside line material, meters, arc and incandescent lamps, motors, etc.

Electric-light Plant.—City of Shelbyville, Tenn., wants to correspond with contractors regarding the installation of electric-light plant. Address H. L. Woosley.

Electric-light Plant.—Mayor and Aldermen, Pass Christian, Miss., will open bids March 1 for lighting the town by electricity. Specifications on file in office of Geo. P. Brandt, town clerk. Usual rights reserved.

Electric-light-plant Equipment.—The C. C. Henderson Electric Light & Power Co., Green-

ville, Ala., wants prices on 120-kilowatt generator.

Elevator.—T. W. Keller, 406 Jackson avenue, Knoxville, Tenn., will probably be in the market for a hand elevator.

Engine.—Stevenson & Womble, Sandy Bend, Ark., want to purchase one 10x12 steam engine, left hand, self-contained; second-hand in good condition.

Engine and Boiler.—Richard Lamb, C. E., 136 Liberty street, New York, N. Y., is in the market for engine and boiler; second-hand. (See "Electrical Equipment.")

Engine and Boiler.—The C. C. Henderson Electric Light & Power Co. of Greenville, Ala., wants prices on 200-horse-power engine and boilers.

Engine and Boiler.—Union Trunk & Bag Co., Richmond, Va., wants prices on engine and boiler.

Engine and Boiler.—C. R. De Bond, Sulphur Springs, Texas, will be in the market in about 60 days for engine and boiler. (See "Cotton-gin Equipment.")

Engines and Boilers.—Mannington Coal & Coke Co., Mannington, Ky., wants prices on engines and boilers; J. B. Williams, president, Frostburg, Md.

Engine-building Tools.—See "Machine Tools."

Engines.—T. H. Johnston & Co., Birmingham, Ala., want addresses of manufacturers of traction engines.

Engines and Boilers.—Pelican Biscuit Co., Memphis, Tenn., wants prices on engines and boilers.

Feather-renovating Machinery.—See "Renovating Machinery."

Filling and Grading.—Bids will be received until March 25 at the bureau of yards and docks, Mordecai T. Endicott, chief, Navy Department, Washington, D. C., for grading and filling at the naval station, New Orleans, La.; funds available \$25,000. Plans and specifications can be seen at bureau or navy-yard, New Orleans.

Fire-department Equipment.—W. H. Shepherd, J. P. Spoerl and Wm. A. Cornwell, fire committee, Cumberland, Md., will open bids February 24 for combination chemical engine and hose wagons, with two 35-gallon chemical cylinders, each capable of carrying 800 feet of fire hose; modern aerial hook-and-ladder truck with extension ladder of 65 feet, with full equipment of ordinary service ladders and equipment; 4500 feet standard fire hose, one dozen one-and-one-eighth-inch standard nozzles and sets of double first-class fire-department harness.

Foundries.—Grasberger Drop Trolley Co., 1001-1003 West Broad street, Richmond, Va., is in the market for malleable-iron castings or soft-steel castings weighing from 5 to 35 pounds.

Foundry.—Davis-Forrest Machine Works, Savannah, Ga., is in the market for a brass and iron foundry, and wants catalogues.

Foundry Equipment.—R. G. Terry, 809 Court street, Lynchburg, Va., wants prices on foundry equipment, cupola, etc.; second-hand preferred. State cash price and where located. (See "Machine Tools.")

Gas-plant Equipment.—James D. Burn, secretary, Oxford, Pa., and the York Engineering Co., engineers, York, Pa., will receive bids for complete equipment for gas plant, including boilers, pumps, gas-producing apparatus, gasometer and all piping, which will include about two and one-half miles of cast-iron pipe from three to eight inches in diameter. Plans and specifications can be seen after March 10 at office of secretary or engineers.

Handle Machinery.—See "Plow-works Equipment."

Heating Apparatus.—Melver & MacKay, P. O. Box 598, Ocala, Fla., wants prices on steam-heating apparatus.

Hydraulic Rams.—Piedmont Mineral Springs Co., Gaffney, S. C., wants prices on hydraulic rams. (See "Bottling-works Equipment.")

Ice-machine Tank.—See "Tank."

Implement Machinery.—See "Plow-works Equipment."

Iron Foundry.—See "Foundry."

Ironworking Machinery.—See "Plow-works Equipment."

Knitting Machinery.—J. L. O. King, Seneca, S. C., wants to correspond with makers of knitting machinery with a view of purchasing equipment.

Levee Work.—Plum Bayou Levee Board, England, Ark., will open bids March 20 for the construction of the levee from Wildcat bayou (Station 700) south to Station 1651, containing approximately 1,403,000 cubic yards; N. B. Beakley, president, and R. B. Eggleston, chief engineer.

Lumber-plant Equipment.—Crown Lumber & Manufacturing Co., 617 Prince street, Knoxville, Tenn., wants prices on machinery and equipment for lumber mill.

Machine Tools.—Grasberger Drop Trolley Co., 1001-1003 West Broad street, Richmond, Va., is in the market for several 18-inch or 20-inch drill presses.

Machine Tools.—R. G. Terry, 809 Court street, Lynchburg, Va., wants prices on planers, lathes, pipe cutters (nothing less than six-inch), bolt cutters, drill press, shapers, boring mills, etc.; second-hand preferred. State cash price and where located. (See "Foundry Equipment.")

Machine Tools.—Greensboro Boiler & Machine Co., Greensboro, N. C., wants prices on complete set of boring tools for Corliss-engine cylinders. The company is also in the market to take agencies for machine tools.

Machine Tools.—See "Boilermakers' Machinery."

Machinery and Supplies.—The Fairbanks Company, Baltimore, Md., wants catalogues and price-lists of all kinds of machinery and supplies. Manufacturers are invited to meet this request immediately.

Mining Machinery.—J. E. Weathers, Box 255, Columbus, Ga., is in the market for machinery and equipment suitable for mining and manufacturing barytes, and wants catalogues and prices.

Municipal Improvements.—The mayor and general council, Atlanta, Ga., will open bids March 6 for the following work for the year 1905: Furnishing and setting curbing and furnishing material and laying brick sidewalks, constructing lateral sewers, furnishing cement, vitrified pipe and casting for sewer work. Specifications can be seen at office of R. M. Clayton, city engineer. Usual rights reserved.

Nail-driving Machinery.—See "Box Machine."

Pig-lead and Packing.—R. S. Williams, city treasurer, Montgomery, Ala., will open bids March 6 for furnishing the city of Montgomery, Ala., with soft pig-lead and untarred packing according to specifications on file in office of city engineer. Certified check for \$500 must accompany each bid. Usual rights reserved.

Piping.—See "Bottling-works Equipment."

Piping.—See "Well Casing."

Plow-works Equipment.—The Dodson Plow Co., Columbus, Miss., is in the market for machinery for making singletrees and plow handles; would also like to figure with manufacturers on machinery for bending wrought iron for plow-stock standards or feet, frames for harrows, cotton planters, etc.; also machinery for making steel plow shapes.

Plumbing.—B. A. Beeson, treasurer, Southern Branch N. H. D. V. S., National Soldiers' Home, Elizabeth City County, Virginia, will receive bids until March 15 for plumbing in K barracks in accordance with instructions and specifications, copies of which with blank proposals and other information may be had on application.

Printing Equipment.—Sanitarium Tablet Co., Newport, Tenn., wants prices on printing presses, etc. (See "Electrical Equipment.")

Printing-plant Equipment.—Whitesburg Printing Co., Whitesburg, Ky., wants prices on machinery and equipment for printing plant.

Printing-plant Equipment.—Carolina Publishing Co., Georgetown, S. C., will be in the market for presses and equipment for newspaper and job printing plant.

Printing-plant Equipment.—J. W. Hall, president Baptist Publishing Co., Fulton, Ky., will be in the market for presses, printers' equipment and supplies and fixtures for printing office.

Pump.—G. B. Cooley, 442 South Grand street, Monroe, La., is in the market for a deep-well pump.

Pumps.—See "Gas-plant Equipment."

Railway Equipment.—J. P. Weimer, Branchville, S. C., is in the market for second-hand light steel rails.

Railway Equipment.—McDonald Bros., West End, N. C., are in the market for three tons pound relaying T rails. Quote price delivered to West End, N. C.

Railway Supplies.—See "Canal Construction."

Railway Equipment.—Richard Lamb, C. E., 136 Liberty street, New York, N. Y., is in the market for 350 tons of 58-pound relay rail with spikes and four trolley cars; second-hand.

Railway Equipment.—Jos. E. Bowen, Atlantic Office Building, Norfolk, Va., is in the market for a 30-ton standard-gauge mogul and a six-wheel standard-gauge 35 or 40-ton switcher.

Renovating Machinery.—John W. Morgan, Riverton, Va., wants addresses of manufacturers or dealers in feather-renovating machinery.

Sewerage System.—T. A. Blaise, city clerk, Oklahoma City, O. T., will open bids March 2 for the construction of a six and eight-inch sanitary lateral sewer in the Military and Orchard Park additions to Oklahoma City in accordance with plans and specifications on file in the city clerk's office. Certified check for \$50 must accompany each bid.

Sewerage System.—The Mayor and Board of Aldermen, Holly Springs, Miss., will open bids March 7 for constructing sewer system, approximating 4.3 miles of eight-inch sewer pipe with septic-tank disposal works, 16 flush tanks and 65 manholes. Plans on file with city clerk, Holly Springs. For particulars address Kirkpatrick & Johnson, engineers, Jackson, Miss.

Sewerage System.—See "Municipal Improvements."

Sewerage System.—See "Water-works."

Steel Drums.—A. N. Sally, 92 West Cain street, Atlanta, Ga., wants addresses of manufacturers of liquefied carbonic-acid gas steel drums for shipping liquefied gas.

Steel Shed.—Board of Commissioners of the Port of New Orleans, Hugh McCloskey, president, 601-602 Ilibernia Bank Building, New Orleans, La., will open bids March 9 for the construction of the Henderson-street steel shed No. 2. Plans, specifications, proposal forms, etc., on file at the office of J. F. Coleman, engineer, 920 Ilibernia Bank Building, New Orleans, by whom full sets will be furnished on deposit of \$15. Usual rights reserved.

Street Improvements.—See "Municipal Improvements."

Street Improvements.—Wm. J. Parkes, city engineer, Bessemer, Ala., will receive bids until March 21 for curbing and grading certain sidewalks as enumerated in Public Improvement Ordinance No. 12. Approximate quantities: 40,000 lineal feet five-inch granite curb, 160,000 cubic yards excavation. Certified check for \$200 must accompany each bid. Specifications, proposal blanks and other information furnished on application. Will also receive bids until March 21 for laying cement sidewalks and vitrified-brick alley crossings and driveways upon certain streets as enumerated in Public Improvement Ordinance No. 11. Approximate quantities: 25,000 square yards cement walks, 2000 square yards vitrified-brick alley crossings and driveways. Certified check for \$250 must accompany each bid. Specifications, blank proposals and other information furnished on application. City reserves usual rights.

Tank.—Stratton-Clark Company, Ltd., Whitecastle, La., is in the market for a brine tank for making ice.

Tanks.—See "Steel Drums."

Tanning Machinery.—The McClanahan Harness & Collar Co., Columbia, Tenn., is in the market for all kinds of improved tanning machinery.

Tower Clocks.—McIver & MacKay, P. O. Box 598, Ocala, Fla., wants quotations on tower clocks.

Traction Engines.—See "Engines."

Wagon factory Machine.—A. T. Huff, R. F. D. No. 2, Louisville, N. C., wants to purchase a cold-tire shrinker.

Wagon Machinery.—The Hiett Wagon Co., Jonesboro, Ark., wants prices on sawed-fello finishing machinery, sand-belt machine, automatic knife grinder and sand drum.

Water-works.—Town of Lenoir, N. C., wants a water-works system on rental basis. Address J. E. Mattocks, secretary Board of Trade.

Water-works.—City of Abbeville, La., will call for bids in about 60 or 90 days for the construction of water-works; capacity 1,000,000 gallons; R. C. Huston, Laurel, Miss., engineer in charge.

Water-works.—J. R. Lequeneq, mayor, Abbeville, La., wants prices on complete equipment for water-works and sewerage system, for which \$45,000 is available.

Water-works Equipment.—See "Electrical Equipment."

Water-works.—City of Braidentown, Fla., wants information as to cost, etc., of installing system of water-works and possibly some sewerage in small towns. Address J. H. Humphries.

Well-casing.—The Enid Mining Co., Enid, O. T., will want prices on well-casing.

Woodworking Machinery.—See "Crate Machinery."

Woodworking Machinery.—See "Wagon Machinery."

Woodworking Machinery.—Union Trunk & Bag Co., Richmond, Va., wants prices on planer, resaw, rip saws, etc.

Woodworking Machinery.—Crown Lumber & Manufacturing Co., 617 Prince street, Knoxville, Tenn., wants prices on woodworking machinery.

Woodworking Machinery.—See "Plow-works Equipment."

Woodworking Machinery.—Ward & Bunch, Iowa Building, Beaumont, Texas, are in the market for a good second-hand 24-inch combination machine for dressing lumber.

MEXICO.

Brick Works.—The Teoloyucan Brick Co. of Teoloyucan, Mexico, will double the capacity of its plant, now producing 1,000,000 bricks per month. About \$100,000 will be expended. Contract has been awarded to J. R. De Witt for the construction of the new kiln. It is also proposed to install machinery for the manufacture of hollow blocks.

Broom Factory.—E. Avila of Monterey, New Leon, and Juan Creel of Chihuahua, Chl., are completing arrangements for the establishment of a broom factory to have a daily output of 60 dozen brooms.

Cigarette Factory.—Col. John Bradbury of Los Angeles, Cal., will establish a cigarette factory in Mazatlan, Mexico. It is reported he will invest \$200,000.

Mining.—La Bohemia Guerrero, S. C., has been organized for the purpose of developing mines in the State of Guerrero. Ramon Alcazar is president; Jose L. Requena, vice-president, and Leopold Salazar, secretary, all of the City of Mexico.

Reduction Plant.—D. V. A. Williams, mining engineer, Second Dolores street, City of Mexico, and Detroit (Mich.) capitalists are organizing a company to have a capital stock of \$200,000 for the purpose of building a 100-

ton mill at Marfil, Gto., for treating ores from various mines.

Tunnel Construction.—It is reported that J. J. Gosper, Sanz Hotel, City of Mexico; George I. Troop of same address, John Young, Frank Middleton, C. H. Harris and others of Atlantic City, N. J., will build a 6000-foot tunnel for the purpose of draining the La Luz chain of mines near Guajuato.

Railways.

Steam Railroad.—Reported that William McLachlan has a contract to build the railway of the Zitacuaro Railroad & Lumber Co., which is to run from Zitacuaro to San Jose Malacatepec in the State of Mexico. It will be narrow gauge and 25 kilometers long. Since January 1 six kilometers of grade have been completed.

Steam Railroad.—W. K. Runyon and L. Boulay are reported to have completed a survey for the Pan-American Asphalt Co., which proposes to build a railroad from its asphalt deposits near Juan Felipe to Cuicillos, about 20 miles. P. W. Henry of New York is president of the asphalt company.

Steam Railroad.—W. F. Merrill, representing a New York syndicate, is reported to have made an examination of the proposed Morelia & Tacumbaro Railroad, and is quoted as saying that he expects the line will be built.

Steam Railroad.—F. W. Andros, engineer, is reported as saying that the location, survey and other plans for the railway from Durango to Mazatlan will be completed by May. It is said the line will be built as soon as a concession is granted.

Street Railway.—Messrs. Kunhardt Bros. have, it is reported, applied for a concession to build an electric railway in the city of Guadalajara, where they own a mule-car line 11 kilometers long.

INDUSTRIAL NEWS OF INTEREST

An Agency Wanted.

The Mountain Steel Range Co., Asheville, N. C., wants a good selling article as side line in Southern States; must be direct from manufacturers.

Vehicle Hub and Water Elevator.

Patents have been issued to J. L. O. King of Seneca, S. C., for a water wheel and for an expanding vehicle hub. Mr. King is prepared to arrange for the manufacture of his inventions on a royalty basis.

A Machinery Bargain.

Buyers of machine tools are invited to address Messrs. Schumacher & Boye, Cincinnati, Ohio, regarding a bargain they are at present offering. An illustration of this machine can be seen in the advertising columns of the Manufacturers' Record today.

Charles W. Black's Enterprise.

Charles W. Black of Blacksburg, Va., announces that he will engage in the general building-material business, handling sash, doors, blinds, ceiling, flooring, cement, lime, etc. He will be prepared to take contracts from the territory tributary to his little city.

Foundry and Machine Shop.

The owners of an established foundry and machine shop, located on two railroads in a town of 8000 inhabitants, offer their plant for sale. The plant is equipped for making mining cars and undertaking general jobbing and repair work in a profitable territory. For further details address Box 317, Gadsden, Ala.

Electric-Light Plant Offered.

An established Southern electric-light plant is to be offered for sale at public auction on March 10. It includes franchises for Sanford, N. C., population 2000, and Jonesboro, N. C., two miles distant, with a population of 1000. It is stated that plant is now in profitable operation. For information address D. E. Melver, commissioner, Sanford, N. C.

Gin and Oil Mill Sale.

An opportunity that investors will doubtless take advantage of without delay is seen in the offer of an established cotton gin and oil mill for sale in Southwest Mississippi. The plant includes a three-press outfit and two systems gins, taking from 3500 to 5000 bales of cotton annually. Full details regarding this property and the price asked can be secured by addressing S. Hirsch, president of the Fayette Oil Works, Fayette, Miss.

Storage Facilities at Norfolk.

Manufacturers or dealers who may be in need of storage facilities at Norfolk, Va., are invited to address Messrs. Jones & Co., 400 Jones' wharf, in that city. This firm is now

erecting a one-story warehouse with corrugated-iron sides and metal roof at a cost of \$50,000, including site. When the warehouse is completed the firm will have 640 feet of water-front with an average depth of 25 feet of water beside the dock, with storage capacity of nearly 20,000 tons.

A. D. Granger Co. in Pittsburg.

An announcement that should be noted by people having occasion to engage the services of contracting engineers is made by the A. D. Granger Co., general contracting engineer. The company states that it has opened an office in Pittsburg in the Bessemer Building, in charge of E. W. Bentley, M. E. Engines, boilers, stacks, pumps, condensers, tanks, complete plants, etc., are specialties with the A. D. Granger Co. The offices in New York and Philadelphia will, of course, be continued.

Laclede Company's Laboratory.

The Laclede Fire-Brick Co., St. Louis, has just installed in its plant a complete laboratory, which is in charge of A. J. Aubrey, a graduate of the School of Mines, Ohio State University, Columbus. This company manufactures fire-brick, cupola blocks, tiles, sewer and culvert pipe, etc., and analyzes all the raw materials entering into the manufacture of its products. Knowing the proportion of the different elements in the materials used, the company is in position to guarantee the serviceability of its products.

A \$30,000 Gas-Plant Contract.

Municipal officers and private corporations interested in modern gas plants are asked to note that an important contract for such a plant has been awarded to the York Engineering Co. of York, Pa. The contract calls for the erection and equipment of a \$30,000 plant at Oxford, Pa., for manufacturing fuel and illuminating gas by the coal and water process. The installation includes engines, boilers, gasometer, gas-producing apparatus and gas mains. The York Engineering Co. will have the plans and specifications ready by March 15 and the plant in operation by July.

Anniston Lime & Stone Co.

Increasing demands for the product of the Anniston Lime & Stone Co. of Anniston, Ala., have caused that company to increase its investment and provide additional facilities for manufacturing Cobb's Anniston Lime and shipping highest-grade limestone. The company's capital stock has been increased from \$100,000 to \$200,000, and it has built at Tredgear a battery of four modern kilns, besides installing the most modern mining machinery, crushers, etc. All the contracts providing the betterments have been signed and are nearing completion. The company has branch offices and warehouses at Julia and Delta streets.

A Growing Elevator Manufactory.

That the Faunt Le Roy Elevator Co. of Baltimore, Md., is enjoying a constantly-increasing volume of business is attested by the fact that very recently it was forced to seek a more commodious and convenient location for its plant. The company secured a site at Highlandtown 40x230 feet and erected a building 30x120 feet, equipping it with modern machinery for the manufacture of its elevators. This plant is now engaged in turning out machines of various and approved designs. The Faunt Le Roy Elevator Co. will supply all necessary information regarding the machines it manufactures.

Land and Timber Proposition.

A land and timber proposition that will doubtless attract considerable attention from those who are interested in Southern development is offered by the Coosawatchie Land & Timber Co. of Brunson, S. C. This company has 5500 acres for sale—2500 in pine and white oak, 3000 in cultivation, balance in fine range for cattle. The owners will sell the timber rights or land and timber both or contract with saw-mill operator to develop the tract. The cultivating land is adapted to truck farming or cotton and corn. This property is located 25 miles from Savannah, Ga., on the Atlantic Coast Line Railway. Write for full details.

Interesting Electrical News.

The Northern Electrical Manufacturing Co. of Madison, Wis., has found extensive sale for its single-voltage two-wire variable-speed motors in all lines of industrial work. The field of the variable speed motor is primarily the machine shop, as no other line of work calls for so many individual machines. However, Northern Variable-Speed Motors are used in all kinds of industries for operating pumps, for boiler feed, circulation, etc., ventilating and blowing fans, elevators, hoists, conveyors, etc. An extensive field for Northern variable motors has been found in the cement industry, where variable-speed drive is especially advantageous.

Locomotives for Japan.

The Baldwin Locomotive Works of Philadelphia Pa., has received the major portion of an order for 152 locomotives for the Japanese government. Bids for furnishing the machines were invited from builders in this country and Europe, and the result is that 77 of them will be furnished by the Baldwin Locomotive Works and 25 by a New York company. The other 50 will be built in Scotland. The locomotives will be of a composite type, which will give a fair amount of speed, coupled with strength and endurance, thus permitting their use for hauling troop and supply trains in Korea and Manchuria or for general use on the railroads of Japan. About \$1,000,000 will be the amount of the Baldwin contract.

Standard Gravel Roof Contracts.

As millowners become more familiar with the superior qualities of Standard Gravel Roof they are awarding contracts for the application of that material in preference to other roofings. Some recent contracts of this kind are worthy of mention. They include roofing and metal work on mill No. 5, warehouses Nos. 1 and 2, and on the boiler and engine house of mill No. 4, for the Odell Manufacturing Co., Concord, N. C. This is one of the best contracts for Standard Gravel Roof that has been signed for some time. The Charlotte Roof & Paving Co. of Charlotte, N. C., received the contract mentioned, that company being a specialist in applying the roofing referred to, besides undertaking other work of a similar character and jobbing in roofing supplies. Owners of buildings needing the best roofing that can be obtained are invited to write for estimates.

New Offices of National Electric Co.

Walter Fairchild has been placed in charge of the New York office at 135 Broadway of the National Electric Co. of Milwaukee, Wis. Mr. Fairchild formerly represented the Bullock Electric Manufacturing Co. in that city, and prior to that represented the Stanley Electric Co. in New York. He is well known in electrical engineering and commercial circles in New York city and State. Robert S. Hopkins has been appointed city sales agent, with headquarters at 135 Broadway, New York. He obtained his engineering experience with the Bullock Electric Manufacturing Co., and while with them had charge of installing many alternating and direct-current plants. J. Frank Perry has just been appointed sales engineer of the National Electric Co. Mr. Perry's field of operation has been largely through New England, but he has been connected with large power installations in all parts of the world. He is at the present time in California representing the interests of the National.

The Standard Scales.

Weighing machinery is in a class that is steadily demanded in all kinds of industrial activity and in many other avenues of life. It must be designed and manufactured in the most careful manner in order that the results may be entirely perfect, and in various forms for different classes of service. The Standard Scale & Supply Co. of Pittsburgh, Pa., has been very successful in scale-making. Its product is used everywhere, and the plant is now supplying Standard scales on contracts with the government to the navy yards at Brooklyn, N. Y.; League Island, Pa., and Norfolk, Va. Additional contracts for private parties are also being filled, besides the regular trade which the Standard Company has built up. The Standard Scale & Supply Co. is sending out to its friends a card presenting a photographic view of its new and extensive manufacturing plant at Beaver Falls.

A. B. C. Elevators in Baltimore.

The A. B. See Electric Elevator Co. is the first tenant to occupy offices in the new Stock Exchange Building, Baltimore, having removed from the temporary location at 218 West Fayette street, where the company has been located since the fire. A reputation gained by over 20 years' experience has placed this firm in the foremost rank as a manufacturer of direct-connected electric elevators of all types, ranging from the small dumb-waiter to the high-speed passenger elevator for office buildings, hotels and apartment-houses. The new plant in Jersey City, covering a single floor space of more than two and one-quarter acres, is now in full operation. It is equipped with the most modern machinery, electrically-driven, and is exclusively devoted to the manufacture of electric elevators. The home offices of this company are in New York, with branch offices in Philadelphia and Baltimore.

E. E. Titus Veneer Machines.

There is a steady demand for veneer-cutting machinery. The establishment of factories requiring equipments of that character and the enlargement of existing plants keep the demand active. Southern machinists have not been backward in offering veneer-cutting machinery. E. E. Titus of Petersburg, Va., having made a specialty of this class of apparatus. Mr. Titus has recently found it necessary to enlarge his plant, and erected a three-story brick warehouse 40x100 feet, the first floor being for stock machinery and the two upper floors for patterns; also erected a foundry building 40x50 feet, and is using the old 30x50-foot foundry as a blacksmith shop. The Titus works include a 60-horse-power engine (built by the Ball Engine Co. of Erie, Pa.) and West generators for furnishing electric light and power. Buyers of veneer-cutting machinery are urged to acquaint themselves with the facts regarding Titus designs.

New Orleans' Great Future.

There can be no doubt but that New Orleans is a city offering great inducements and opportunities for the investment of capital. The increasing prosperity of the South cannot fail to improve the business of New Orleans. This city is the gateway of the Mississippi valley. It is near the greatest oil fields in the world, has fine harbor and dock facilities, which are now being largely improved, and manufacturing enterprises are exempted from taxation until 1910. The port charges are at a minimum, and being 500 miles nearer to Colon, Panama, the Atlantic terminus of the Panama canal, it is evident that the city of New Orleans has an undoubted great future to look forward to. Emilien Perrin, 345 Baronne street, New Orleans, is making a specialty of real estate and mortgage investments in his city, and invites correspondence from those who may contemplate placing their funds where profitable returns can be realized.

Hutchins Roller Swing.

People who are interested in novelties designed for comfort and to give pleasure to the user are invited to investigate the merits of an improved device now being offered buyers. This novelty is a roller swing intended for open-air use on the lawn, on porches or elsewhere to suit the convenience of the owner. Its features are so attractive and so desirable for the seasons of the year when people are out of doors most of the time that many of them are being shipped to all parts of the country. The novelty is a roller swing which is practical and unique. It operates as easily as a rocking-chair, and is handsome, strong and well made, carrying four adult passengers and all the "kids" in the neighborhood. It can be used for reading, card-playing, luncheon, sewing, etc. The Hutchins Roller Swing is the device referred to, and the American Machine Co. manufactures it. Address the offices at Wilmington,

Del., for an illustrated circular giving further details.

Baltimore Equitable Building Ready

Baltimore continues to make steady progress in the reconstruction of its burned business district, and many new structures there have already been occupied. It is most interesting to note the announcement that the seventh, eighth and ninth floors of the Equitable Building are now ready for occupancy, the first tenant having moved in this week, and the Baltimore Trust & Guarantee Co. is in its old offices where it had conducted business 11 years before the fire. The remainder of the Equitable will be ready by April 1. Men engaged in industrial, financial or other enterprises requiring modern accommodations in the best class of office buildings will make no mistake by going into the Equitable Building. The structure is equipped in every possible way with the comforts and conveniences demanded by progressive men. Information as to the size and prices of the various offices can be obtained by applying to the Calvert Building & Construction Co. or making inquiry by letter.

Printing Equipment and Supplies.

Southern printing establishments requiring machinery or supplies of any kind will find they can obtain their materials to good advantage in Baltimore. That city has several large manufacturing plants where printing materials are made to supply the increasing trade throughout the country. Possibly none of these has been more successful than that conducted by Messrs. Spencer & Hall, especially since the firm installed its new and modern plant recently. Messrs. Spencer & Hall are located at Ashland avenue and McKim street, Baltimore, Md., where they are manufacturing type of all kinds, spaces, quads and printers' materials generally, besides handling second-hand printing presses, paper-cutters and other outfits. They are well equipped to take orders, whether large or small, and are shipping to all parts of the United States. Recently they sent materials to Oklahoma, North Dakota and other States. It is the intention of the firm to build up a trade in the South, and the buyers of that section are invited to write for prices.

Steam Turbine Plant in Klondike.

It is announced that an order has been entered for the equipment of a power-house for the electrical operation of gold-dredging boats on the Alaskan rivers. The plan is an entirely new one, and involves many interesting features. The contract was awarded to the Westinghouse Companies of Pittsburgh by the Canadian Klondike Mining Co. A visit was made to the works of the Westinghouse interests at East Pittsburgh to ascertain if electrical machinery could be used in the gold-mining plant. After considering various plans it was decided to install a 400-kilowatt turbo-generator in the power-house, to be driven by a 600-horse-power Westinghouse-Parsons steam turbine. The dredge-boats are being built by the Marion Steam Shovel Co. of Marion, Ohio. On these boats will be installed induction motors aggregating a total of about 500 horse-power, and varying in size from 7½ to 100 horse-power. The power-house will be located at Dawson City, and the dredges will operate on the Yukon river and its tributaries. Lines for transmitting power will be strung from the station to the boats wherever they may be working. Electrical machinery is used very extensively in mining operations, but this plant will be watched with considerable interest, owing to the remoteness of the country and the new field which will be opened.

Warren Soap Manufacturing Co.

The Warren Soap Manufacturing Co. of 77 Summer street, Boston, Mass., on account of largely-increased business, has thought best to increase its capital stock. Albert C. Warren, treasurer for many years and president since the death of George L. Stevens, finds his duties with the Warren Brothers Co., of which he is treasurer, taking up so much of his time that he feels it necessary to resign the presidency of the Warren Soap Manufacturing Co., and the new officers of the latter company are Henry W. Tenney, president; I. L. Welsh Reynolds, treasurer, and Stephen W. Libby, vice-president and superintendent. Mr. Tenney has been with the company for 12 years and is well known throughout New England, where he has looked after that section of the business. Mr. Reynolds came with the company at the same time as Mr. Tenney, and has taken care of business in New York State, where he has a very large trade. Mr. Libby, who has been the chemist and superintendent of the works for the past 14 years, will still have charge of that branch. He is well known as one of the best soap chemists in the country. The Warren Soap Manufacturing Co. has 10 salesmen on the road and

is one of the largest textile-soap manufacturing concerns in the United States. Some of the employees have been given the opportunity to acquire stock in connection with the changes noted.

Flywheel and Other Mill Accidents.

A most eloquent and convincing argument for the wide use of some automatic device for preventing flywheel accidents is found in a report of such an accident at the National Tube Co.'s mill on January 3, when within a few minutes the power end of a big busy mill was converted into a junk heap by a racing engine; three men were seriously injured and one man was killed. The damage to property is said to be \$100,000, but the damage to those who were maimed and to the dependents of the man who was killed are not easy to estimate, though the courts are likely to name amounts which will materially increase the total cost of the accident. There is very satisfactory evidence that such accidents may be prevented by an automatic device known as the Monarch Engine Stop and Speed Limit System, manufactured by the Consolidated Engine Stop Co. of 100 Broadway, New York; in fact, it is a matter of record that during the years this device has been in use it has averted many accidents, which but for its prompt and positive action must have resulted very much as did the one at McKeesport. In addition to its automatic action, which prevents the engine from racing, the Monarch system may be operated from any part of the plant by means of specially-devised push switches conveniently placed. The fact that it is equally efficient in such use is attested by a recent decision handed down by the Supreme Court of Rhode Island, when a verdict was found for the employer in an employee's suit for damages because it was shown that through this system the power was promptly shut off and the machinery stopped within six or eight seconds after the switch was closed. The Consolidated Engine Stop Co. also makes a motor stop, which is said to do for an electric motor of any size or type precisely what the engine stop does for the engine.

Steel-Bound Concrete Curbs and Gutters.

Improved streets and sidewalks constitute a branch of modern progress receiving continued attention from municipal officers, engineers and those who are engaged in construction work where curb and gutter making is required. Into this work, as in so many others, has entered the use of steel. The steel-bound concrete curb is handsomer than granite and much stronger, continuous in construction and never out of line; frost does not displace it; it requires no resetting or repairs, and its galvanized-steel corner-bar prevents chipping or breaking on the edges. It is doubtless the most presentable and durable curb laid, and with gutter combined is the ideal for asphalt, brick or macadam roadways. The combined steel-bound curb and gutter is especially recommended for asphalt or macadam. Its use adds many years of permanency to asphalt pavements, as the rotting of such pavements always begins next to the curb. This steelwork is not offered as a substitute for the easily-broken cement curbing or the cheaper grades of different stones, but is intended to compete directly in advantages and price with the costly dressed-granite curbing, which it should eventually supplant by reason of its merits. These latter are easily susceptible of demonstration. The curb and gutter construction referred to is done in accordance with the Wainwright system of steel-protected concrete construction of which the Steel Protected Concrete Co. is the proprietor. This company states that its system has met with the approval of city engineers, property-owners and others interested in municipal improvements, and has been thoroughly tested in more than 50 cities of the United States. The Steel Protected Concrete Co. has offices in the Real Estate Trust Building, Philadelphia, Pa., and invites inquiries from those who are not as yet advised as to the great merits of the Wainwright system.

Extensions to Carnegie Institute, Pittsburgh.

The magnificent extensions to the Carnegie Institute in Pittsburgh are rapidly nearing completion. They represent an expenditure of \$5,000,000, the gift of Andrew Carnegie. The new building almost obscures the original structure, a previous gift of Mr. Carnegie, which cost \$3,000,000. It is 400x500 feet in size. In addition to the library, comprised within its walls are to be found art galleries, a museum, a music hall, a lecture hall, a restaurant and the general offices required. The basement will be an exceptionally busy part of the building, as, in addition to the modeling and casting rooms for the art department, workshops will be in-

stalled for the repairs necessary to the maintenance of the building. The printing office and bindery used in connection with the library and the large lighting and heating plant necessary for illuminating and warming such a vast building are also situated in the basement. The scheme of workmanship is on a very high standard, the architects, Messrs. Alden & Harlow, having based their designs on the leading institutions of this type both in Europe and America. The heating and lighting plant when completed will form a very interesting example of an installation that both in workmanship and appearance will be of very high quality, the specifications on these points being very rigid. The contract for the electric generators has been let to the National Electric Co., Milwaukee. It calls for five 300-kilowatt, 120-revolution-per-minute, 12-pole, 125-volt, direct-current engine-type generators. These machines will be of the latest design and best material, of massive though pleasing appearance, the heaviness in outline being relieved by the elliptical section of the frame. All visible bolts will be nickel-plated, and the field coils taped on the outside and finished with a wrapping of fishnet cord. The terminal boards will be of Vermont marble. The total net weight of each generator will be about 55,000 pounds, the armature and commutator accounting for 18,000 pounds. On the final test the generators will be expected to withstand a momentary overload of 75 per cent. without flashing, and to operate from no load to 25 per cent. overload without shifting the brushes.

TRADE LITERATURE.

New Westinghouse Circulars.

The Westinghouse Electric & Manufacturing Co., Pittsburgh, Pa., has issued two new circulars for February, Nos. 1097 and 1099. These circulars relate interesting facts regarding the Westinghouse Bipolar Motors, Type B, for direct-current circuits, and Westinghouse type K motors, direct-current, series wound, for crane, hoisting and similar service.

"Esso" Glue-trin Core Binder.

A novelty which will interest founders especially is now being sent through the mails. It represents a barrel of "Esso" Glue-trin Core Binder, the substitute for rosin, flour, core oils and other core mixtures. Founders who want to try this new material can do so without it costing them a cent. They are invited to write the S. Obermayer Company, Cincinnati, Ohio, which manufactures the "Esso" specialty.

Multiphase Type K Wattmeters.

Bulletin No. 161 of the Fort Wayne Electric Works, Fort Wayne, Ind., presents details as to the multiphase induction integrating type K wattmeter manufactured by that company. This wattmeter is of sturdy mechanical construction, the internal parts are compact and symmetrically arranged, the fine details are of mechanical simplicity and electrical accuracy, and its general businesslike appearance are ample explanation of its popularity among users of modern wattmeters. Users and dealers in electrical apparatus of this character will find timely facts of interest in Bulletin No. 161. Send for a copy.

New Wesco Bulletins.

People who are interested in the latest improved telephone instruments, switchboards and other similar equipment will find timely data presented in the new Wesco bulletins now being distributed. These bulletins tell about the latest product of a factory which has earned an enviable reputation for telephone apparatus of the highest grade that gives satisfaction to the most exacting users and buyers in the telephone field. Illustrations and descriptions are given of the various kinds of instruments, and pointing out their superior features. The Wesco Supply Co., of St. Louis, Mo., manufactures the Wesco apparatus, and invites requests for its descriptive literature.

The Snare & Triest Co.

A handsome calendar for office use now being distributed shows the recreation pier at the foot of Market street, New York; the coaling plant at Portsmouth, N. H.; for the United States government, and the powerhouse of the General Electric Society of Berlin at Havana, Cuba. These buildings comprise a few of the large structural metal contracts completed during 1904 by the Snare & Triest Co., 143 Liberty street, New York. This company of contracting engineers engages to erect buildings of all kinds, steel and masonry work, bridges, piers, sheds, coaling plants, etc. It has recently decided to remove on May 1 to more commodious offices in the Central Building, 143 Liberty

street, Rooms 618 to 627, and in the Snare & Triest calendar has inserted a reminder to this effect.

Fleming-Harrisburg Engine.

The Harrisburg Foundry and Machine Works of Harrisburg, Pa., has just issued a leaflet entitled "Fleming-Harrisburg Engine at the International Exposition, St. Louis, Mo." This publication is a facsimile reproduction of an article published in the November issue of the Engineer (London), and describes the design and construction, as well as the performance of one of this company's latest productions in the four-valve compound type. The engine was used in connection with the Intramural Electric Transportation System at St. Louis, and was in service continually during the entire period of the exposition, developing more actual horsepower than any other engine employed in exposition service. The engine received a gold medal and special diploma as highest award in its class by the international jury, and is well illustrated and described in the article as reproduced, copies of which will be mailed upon request.

Duplex Flywheel Ammonia Pump.

Did you ever use a duplex flywheel ammonia pump in your plant? If you have been accustomed to the old-fashioned direct-acting pumps the duplex flywheel pattern will be a sort of revelation to you. The duplex is so mechanically perfect as to reduce the probability of a breakdown, and it is virtually a double pump. Should the packing on one side become worn or should an accident happen to one side, the crank-pin of the disabled side can be disconnected and the other side connected in a jiffy. Not a minute need be lost. Moreover, either side of the pump is of sufficient capacity to operate a machine. These few "pointers" will interest managers who have been having trouble with their pumps, and they are invited to write the Columbus Iron Works Co., of Columbus, Ga., for illustrated circular giving other facts regarding the duplex. The company makes the pump mentioned as well as ice machines, steam and ammonia fittings, etc.

Leaky Joint Problem Solved.

"The Leaky Joint Problem and How Solved" is the title of an illustrated publication now being distributed in the interest of improved efficiency in gas and water mains. The pamphlet gives facts as learned from the practical experience of the leading gas and water companies of some of the leading cities of the United States. It tells about the features of Universal Pipe, which make joint leakage impossible in lines of that piping properly laid. Besides the testimony of private users, there is presented the testimony of the government. The United States has adopted and installed Universal Pipe on Ellis Island, New York harbor, and specified it for other places. Illustrations of the Ellis Island work are shown. The pipe has also been laid through under a number of rivers, and illustrations of that class of work—Black river, Lorain, Ohio—are also shown. Universal Pipe is manufactured by the Central Foundry Co., manufacturer of cast-iron pipe and fittings for gas, water, compressed air, etc.; offices at 116-O Nassau street, New York. Write the company for the pamphlet about solving the leaky-joint problem.

Westcott Improved Lathe Chucks.

Users of lathe chucks are naturally interested in the latest types of such devices. They will therefore be pleased to have their attention called to a publication which gives some important facts as to the latest offerings in this class of specialties. The publication is devoted to an explanation of the Westcott Patent Lathe Chucks and the Little Giant Drill Chucks. In the Westcott chuck is given all the movements and conveniences obtainable in both the independent and universal chucks at a much less cost than for both. The movements are independent, universal, eccentric. The jaws of the Westcott lathe chucks are reversible. The buyer need not incur the expense of buying an extra set of jaws, which are likely to get lost, but can use the same set for all purposes by reversing them, which is quickly and easily done. Screw heads do not project beyond the diameter in any of Westcott's chucks to catch the workman's sleeves. The claims made for these chucks are as follows: Strongest grip, greatest capacity, greatest durability, most perfect adjustment, cheapness and accuracy unsurpassed. The Westcott Chuck Co., of Oneida, N. Y., is the only manufacturer of Westcott and Little Giant chucks, and invites machine-works managers and others interested to write for latest catalogue, which fully describes and illustrates the company's exclusive devices.

The Universal Kerosene Engine.

There is now being offered to power-users a new engine that is evidently destined to be in great demand as soon as its meritable qualities become known. The engine uses refined petroleum or common kerosene oil (of 150 degrees first test) as the direct source of its motive power, and it is stated that the larger engines can be run with less than one pint of kerosene oil per actual horse-power hour. The smaller sizes require but a little more than a proportionate amount. The engines are self-oiling, positive in igniting, simple, safe, economical, guaranteed to develop their rated horse-power and to be free from defect of material or construction. This new motive agent is known as the Universal Kerosene Engine, and full particulars regarding it are presented in an illustrated leaflet now being issued. The publication refers to the adaptability of the engine and to isolated electric-lighting and charging plants, either direct connected or belted to generator. The equipments are adapted for country residences, apartment-houses, hotels, factory buildings, stores, manufacturing plants generally, and for various other uses. One illustration shows a Universal Kerosene Engine which operated 100 16-candle-power incandescent lamps at a cost of five cents per hour with fuel oil and 12 cents per hour with kerosene oil. The Universal Kerosene Engine Co., 137 Liberty street, New York, builds the new engine. Power-users are urged to investigate before they place any contracts.

"Loew" Grease and Oil Separator.

Rapid progress in all lines of power generation makes it necessary for steam engineers to pay the strictest attention to all the details of their plants to stop waste and leakage of every kind. The exhaust steam which in many cases has been allowed to go to waste is now regarded as offering great possibilities for economy, and if the grease and oil can be removed therefrom it may be used for many purposes where live steam is now required. The condensation from the exhaust of large plants forms an item of no mean magnitude. Many devices have been introduced which separate from 70 to 87 per cent. of grease and oil, making the exhaust steam useful for a few purposes, but there is another invention which its originators claim removes all the grease and oil from the exhaust steam. This is the Loew Grease and Oil Separator manufactured by the Loew Supply & Manufacturing Co. of Cleveland, Ohio. The installation of this device will largely increase the capacity of a plant. It will save fuel and labor and prove economical in every way. The device is convenient, simple and effective in operation. The maker guarantees that the Loew separator will convert what is otherwise waste product into a pure dry steam at no extra cost except the price of the separator. This cost is trivial compared with its economic value. An illustrated pamphlet has been issued explaining all the details of this device. Send for a copy. Address the Cleveland office or the New York office at 39 Cortlandt street.

To Manufacturers.

By the advent of electricity new economies have been effected, but in no instance has there been a more striking reduction of expense than in the application of electricity to the transportation of material. Everyone is familiar with electricity in street-railway service for the transportation of passengers. It is now applied to the handling of material of every kind, including merchandise and freight. Men used for heavy labor necessarily tire, especially when employed for moving trucks and wheelbarrows or for lifting and tiering material. Such labor tends to economize its strength. Now, in place of this, comes electricity, as fresh at 5 P. M. as at 7 A. M. Not only does it do the carrying, but also the lifting or lowering. It is flexible, and its application to almost any problem is marvelous. In warehouses it can cover every foot of space. It can tier even higher than its own track. This use of electricity is termed "Telpherage." In the case of street railways the question was electricity versus horse power. In mills, freight-yards, etc., it is electricity versus man power. No power is so expensive as man—none so cheap as electricity. In Telpherage "electricity does the labor, man the directing," thus allowing laborers to be employed in other fields, and ensuring a more ready servant to which no expense attaches when not in actual use. The Telpherage system is detailed in the pages of a pamphlet which illustrates just a few points of the plants where electricity is doing work day in and day out at a minimum of expense and a corresponding increase of efficiency. The United Telpherage Co., 20-22 Broad street, New York, offers Telpherage in its most practical form, with equipments and apparatus specially designed for the purpose. Write for facts.

FINANCIAL NEWS

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office Manufacturers' Record,

Baltimore, Md., February 22.

United Railways was the center of interest in the Baltimore stock market during the past week, trading in the income bonds being particularly brisk. While the stock was about steady, the incomes advanced several points and the 4 per cents also experienced improvement in price. Seaboard stocks were dull, but the 4 per cent. bonds showed both activity and gains. Mt. Vernon-Woodberry Cotton Duck issues displayed some activity and a disposition to strengthen. United Electric Light & Power, Consolidated Gas and G. B. S. Breweries were dull. Alabama Consolidated Coal & Iron showed further improvement, an advance of 10 points in the common stock being conspicuous.

In the trading United Railways common sold from 14 to 14½, with last sale at 14½; the incomes from 58 to 60½, last sale at 60½; the 4 per cents from 95½ to 97½, last sale at 96½; United Electric Light & Power preferred changed hands at 52, and the 4½s at 98½; Consolidated Gas sold at 85; Seaboard common at 17½ to 18; the preferred at 37½ to 37¾; the 4 per cent. bonds from 89 to 91½, with last sale at 91½; the 10-year 5s at 104½ and 104½; the 3-year 5s at 102; the new common stock sold at 24½ and 23½, and the rights at ¾ and ¾; the new 1st preferred was offered at 89, and the new 2d preferred was last quoted at 49½ bid to 52 asked; Cotton Duck common changed hands at 7 to 8¾; the incomes at 29 to 29½, and the 5s from 77 to 78; G. B. S. common at 9¼ to 9; the incomes at 29½, and the 1sts at 60.

Bank stocks sold as follows: Merchants', 170; Western, 39; Commercial and Farmers', blue certificates, 115; Union, 122½ and 123; Mechanics', 25½ to 26½; Bank of Baltimore, 120. Trust and other company stocks were dealt in as follows: Fidelity & Deposit, 160 and 159¾; International Trust, 136 to 138; Union Trust, 61 to 62½; Maryland Casualty, 59; Baltimore Trust, 300.

Other securities were traded in as follows: Alabama Consolidated Coal & Iron common, 60 to 70; do. preferred, 95; do. 5s, 94 to 93; Southern Railway preferred, 97; Baltimore Brick stock, 9½ to 10; National Compositone, 25; Atlantic Coast Line common, 123 to 122; do. new 4s, certificates, 91½ to 91¾; do. Consolidated 4s, 103½ to 103¾; do. Connecticut 4s, certificates, 5-20s, 95½ to 96; Anacostia & Potomac 5s, 106¾ to 106½; Maryland & Pennsylvania incomes, 53 to 55; do. 5s, 95½; Norfolk Railway & Light stock, 12; do. 5s, 94½; Virginia Electric Railway & Development 5s, 99½; Merchants' Coal 5s, 95; Sloss Iron & Steel, 75; City & Suburban (Washington) 5s, 106¾ to 107; Dayton, Lebanon & Cincinnati 5s, 60; Richmond & Danville 6s, 117 to 116½; Toledo Traction 5s, 100½, 102; Western Maryland 4s, 93½ to 93¾; North Carolina 4s, 103½ and 102½; Carolina Central 4s, 98¾; Georgia & Alabama Consolidated 5s, 113¾; Consolidation Coal 4½s, 100¾; Pittsburgh-Allegany Telephone 5s, 87; Charleston Consolidated Electric 5s, 94½; Virginia Midland 1sts, 104½; West Virginia Central 6s, 111½; Virginia Centuries, 97 to 96½; Norfolk City 4s, 1932, 100¾; Florida Southern 104 to 105; Georgia Southern & Florida 5s, 115; Coal & Iron 5s, 106½; Allegany

Valley 5s, 117½; City & Suburban (Baltimore) 5s, 113½; Georgia, Carolina & Northern 5s, 113.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended February 22, 1905.

Railroad Stocks.	Par.	Bid.	Asked.
Atlanta & Charlotte.....	100	165	165
Atlantic Coast Line.....	100	122½	123
Atlantic Coast Line of Conn.....	100	80	80
Georgia Southern & Florida.....	100	45	45
Georgia Sou. & Fla. 2d Pref.....	100	65	75
Norfolk Railway & Light.....	100	25	25
Seaboard Railway Common.....	100	18	18½
Seaboard Railway Preferred.....	100	38½	38½
United Railways & Elec. Co.....	50	14½	14½
Bank Stocks.			
Citizens' National Bank.....	10	28	29
Commerce & Far. Nat. Bank.....	100	115	115
Drovers & Mech. Nat. Bank.....	100	199	205
Farmers & Mer. Nat. Bank.....	40	50	56½
First National Bank.....	100	151	151
German-American Bank.....	100	108	110
German Bank.....	100	106	106
Merchants' National Bank.....	100	163	170
National Bank of Baltimore.....	100	129	125
National Bank of Commerce.....	100	15	27
National Exchange Bank.....	100	184	186
National Howard Bank.....	10	11	11
National Mechanics' Bank.....	10	25	26½
National Union Bank of Md.....	100	122	123½
Western National Bank.....	20	39	40
Trust, Fidelity and Casualty Stocks.			
Baltimore Trust & Guarantee.....	100	305	305
Central Real Estate & Trust.....	50	57	57
Fidelity & Deposit.....	50	157½	159½
International Trust.....	100	138	138
Maryland Casualty.....	50	58½	60
Mercantile Trust & Deposit.....	50	150	157½
Union Trust.....	50	62½	62½
U. S. Fidelity & Guaranty.....	100	125	125
Miscellaneous Stocks.			
Alabama Coal & Iron.....	100	75	75
Ala. Coal & Iron Pref.....	100	94½	95½
Consolidated Gas.....	100	85	85½
Consolidation Coal.....	100	78	78
Cotton Duck Voting Trust.....	100	5½	5½
G. B. & S. Brewing Co.....	100	9	9
Internat. Mer. Marine Pref.....	100	50	51
United Elec. L. & P. Pref.....	50	50	51
U. S. Cotton Duck Common.....	100	12	12

Railroad Bonds.			
Albany & Northern 5s, 1916.....	92½	92½	92½
Atlanta & Charlotte 1st 7s, 1907.....	106	107	107
Atlan. Coast Line 1st Con. 4s, 1962.....	102½	103½	103½
Atlantic Coast Line 4s, Cts., 1962.....	91½	92	92
Atlantic Coast Line (Conn.) 5s.....	115	117½	117½
Atlantic Coast Line (Conn.) 4s.....	91½	92	92
Carolina Central 4s, 1919.....	98½	98½	98½
Charleston & West. Car. 5s, 1916.....	114	114	114
Char. Col. & Aug. 2d 7s, 1910.....	110	110	110
Char. Col. & Aug. 2d 7s, 1910.....	110	110	110
Coal & Iron Railway 5s, 1920.....	106	107½	107½
Columbia & Greenville 1st 6s, 1916.....	117	117	117
Florida Southern 4s, 1910.....	98½	99½	99½
Georgia & Alabama 5s, 1915.....	113½	113½	113½
Georgia Car. & North. 1st 5s, 1929.....	112½	113	113
Georgia Pacific 1st 6s, 1922.....	124½	125	125
Georgia South. & Fla. 1st 5s, 1915.....	114½	115½	115½
Maryland & Pennsylvania 4s, 1911.....	94	94	94
Potomac Valley 1st 5s, 1911.....	115½	115½	115½
Raleigh & Augusta 1st 6s, 1920.....	125	125	125
Richmond & Danville Gold 5s, 1915.....	116½	117	117
Savannah, Fla. & West. 5s, 1914.....	113	113	113
Seaboard Air Line 4s, 1910.....	91½	91½	91½
Seaboard Air Line 5s, 10-year, 1911.....	104½	104½	104½
Seaboard Air Line 5s, 3-year.....	101½	102½	102½
Seaboard & Roanoke 5s, 1926.....	110½	110½	110½
Southern Railway 1st 6s, 1914.....	119	119	119
Virginia Midland 1st 6s, 1916.....	103	103	103
Virginia Midland 2d 6s, 1911.....	111	111	111
Virginia Midland 3d 6s, 1911.....	113	113	113
Virginia Midland 4th 3-4-5s, 1921.....	114	114	114
Virginia Midland 5th 5s, 1926.....	116½	116½	116½
Western Maryland new 4s, 1912.....	92½	93½	93½
West. North Carolina Con. 6s, 1914.....	116	116	116
West Virginia Central 1st 6s, 1911.....	111½	111½	111½
Wilmington, Col. & Aug. 6s, 1910.....	109	109	109
Wilmington & Wel. Gold 5s, 1915.....	118	118	118

Street Railway Bonds.			
Anacostia & Potomac 5s, 1919.....	106½	106½	106½
Augusta Rwy. & Elec. 5s, 1910.....	103½	104	104
Baltimore City Passenger 5s, 1911.....	107½	107½	107½
Baltimore City Passenger 4½s.....	105½	105½	105½
Baltimore Traction 1st 5s, 1929.....	115	115	115
Baltimore Traction Conv. 5s, 1906.....	102	102	102
Central Ry. Con. 5s (Balt.), 1932.....	117½	117½	117½
Charleston City Railway 5s, 1923.....	105	105	105
Charleston Con. Electric 5s, 1910.....	96½	96	96
City & Suburban 5s (Balt.), 1922.....	113	113½	113½
City & Suburban 5s (Wash.), 1918.....	106½	107½	107½
Knoxville Traction 1st 5s, 1925.....	105	107	107
Lake Roland Elec. 5s (Balt.), 1942.....	118	118	118
Lexington Railway 1st 5s, 1919.....	104	105	105
Macon Rwy. & L. 1st Con. 5s, 1913.....	90	90	90
Norfolk Railway & Light 5s.....	94	94½	94½
Norfolk Street Railway 5s, 1914.....	110	110	110
North Baltimore 5s, 1912.....	120½	120½	120½
United Railways 1st 6s, 1919.....	96½	96½	96½
United Railways Inc. 4s, 1918.....	60½	60½	60½
Miscellaneous Bonds.			
Alabama Consol. Coal & Iron 5s.....	93½	93½	93½
Atlanta Gaslight 1st 5s, 1917.....	103	103	103
Consolidated Gas 6s, 1910.....	108½	108½	108½
Consolidated Gas 5s, 1939.....	115	116½	116½
Consolidated Gas 4½s, Cts., 1916.....	102	102	102
G. B. & S. Brewing 1st 3-4s.....	59½	60	60
G. B. & S. Brewing 2d Incomes.....	25½	29½	29½
Maryland Telephone 5s.....	95½	95½	95½
Mt. V. & Wood's Cot. Duck 5s.....	77½	77½	77½
Mt. V. & Wood's Cot. Duck Inc.....	30	30	30
United Elec. Light & Power 4½s.....	98	98	98

SOUTHERN COTTON-MILL STOCKS

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending February 20.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	60	72
Aiken Mfg. Co. (S. C.).....	85	93
Anderson Cotton Mills (S. C.).....	106	106
Arkwright Mills (S. C.).....	104	104
Augusta Factory (Ga.).....	75	77
Belton Mills (S. C.).....	99	101
Bliss Mfg. Co. (Ga.).....	102	102
Brandon Mills (S. C.).....	87½	87½
Buffalo Cotton Mills (S. C.).....	89	91
Buffalo Cotton Mills (S. C.) Pfd.....	89	91
Chadwick Mfg. Co. (N. C.).....	122½	122½
Chiquola Mfg. Co. (S. C.).....	96	96
Clifton Mfg. Co. (S. C.).....	93	93
Clifton Mfg. Co. (S. C.) Pfd.....	100	100

Clinton Cotton Mills (S. C.).....	135	135
Courtenay Mfg. Co. (S. C.).....	108	108
Columbus Mfg. Co. (Ga.).....	88½	88½
Dallas Mfg. Co. (Ala.).....	79	85
Darlington Mfg. Co. (S. C.).....	77	83½
Eagle & Phenix Mills (Ga.).....	106	106
Easley Cotton Mills (S. C.).....	100	100
Enoree Mfg. Co. (S. C.).....	85	85
Enoree Mfg. Co. (S. C.) Pfd.....	100	100
Enterprise Mfg. Co. (Ga.).....	160	200
Exposition Cotton Mills (Ga.).....	70½	73
Gaffney Mfg. Co. (S. C.).....	70½	73
Gaineville Cotton Mills (Ga.).....	50	50
Graniteville Mfg. Co. (S. C.).....	125	130
Greenwood Cotton Mills (S. C.).....	97	101
Grendel Mills (S. C.).....	101	102
Henrietta Mills (N. C.).....	196	196
King Mfg. Co., John P. (Ga.).....	90	93
Lancaster Cotton Mills (S. C.).....	100	100
Lancaster Cot. Mills (S. C.) Pfd.....	100	100
Langley Mfg. Co. (S. C.).....	92	92
Laurens Cotton Mills (S. C.).....	171	171
Limestone Mills (S. C.).....	95	95
Lockhart Mills (S. C.).....	101	101
Louis Mills (N. C.).....	95	95
Louis Mills (N. C.) Pfd.....	102	102
Marlboro Cotton Mills (S. C.).....	89	91
Mayo Mills (N. C.).....	91	91
Mills Mfg. Co. (S. C.).....	100	100
Monarch Cotton Mills (S. C.).....	96	96
Monarch Mills (S. C.).....	100	100
Newberry Cotton Mills (S. C.).....	121	121
Norris Cotton Mills (S. C.).....	101	101
Odell Mfg. Co. (N. C.).....	101	101
Orangeburg Mfg. Co. (S. C.) Pfd.....	75	75
Orr Cotton Mills (S. C.).....	99½	101
Pacolet Mfg. Co. (S. C.) Pfd.....	102	102
Pelzer Mfg. Co. (S. C.).....	176	181
Piedmont Mfg. Co. (S. C.).....	126	126
Pow Mfg. Co., F. W. (S. C.).....	125	125
Raleigh Cotton Mills (N. C.).....	100	100
Saxon Mills (S. C.).....	102	102
Sibley Mfg. Co. (S. C.).....	60	62½
Spartan Mills (S. C.).....	129	137½
Trian Mfg. Co. (Ga.).....	130	140
Tucapau Mills (S. C.).....	145	145
Union Cotton Mills (S. C.).....	129	133
Union Cotton Mills (S. C.) Pfd.....	99	100
Victor Mfg. Co. (S. C.).....	90	103
Warren Mfg. Co. (S. C.).....	105	105
Warren Mfg. Co. (S. C.) Pfd.....	18	20
Washington Mills (Va.).....	96	96
Whitney Mfg. Co. (S. C.).....	110	110
Woodruff Cotton Mills (S. C.).....	97	100

Moody's Manual.

The Moody Publishing Co., 35 Nassau street, New York, announces that the 1905 edition of Moody's Manual of Corporation Securities is in preparation, and that it will be much improved over last year. Greater space will be given the subjects of steam railroads and steam railroad securities. It will be fully up to date. The printed page will be increased to 5¼x7½ inches, and the purpose is to make this issue the most complete and accurate railroad reference book ever issued. The volume will also cover, as usual, public utility corporations and industrial corporations, yet these fields are to be still further and more fully represented in this edition. The section covering banks and trust companies, and, in fact, every department will share in the benefits to come from this additional work in the collection of reference matter of great variety.

New Corporations.

It is reported that another bank is to be established at Darlington, S. C.

It is reported that a bank is to be established at Turin, Ga., with \$25,000 capital.

A new building and loan association is to be organized at Cullman, Ga., it is reported, by citizens of that place.

It is reported that a building and loan association is being organized at San Angelo, Texas, with \$50,000 capital.

It is reported that a new bank with \$25,000 capital is to be established at Jackson, Tenn., with George C. Wilkerson as cashier.

The Oklahoma State Bank, capital \$25,000, has begun business at Enid, O. T., with C. C. Robinson as president and D. W. Robinson, cashier.

The First Bank of Red Level, Covington county, Alabama, has been incorporated, with \$50,000 capital, by J. I. Deens, C. W. and C. A. Coster.

Articles of incorporation for the Johnson Investment Co. of Jacksonville, Fla., with \$20,000 capital, have been filed by James E. Johnson, Robert A. Baker and M. D. Johnson.

It is reported that a new bank and trust company is being organized at New Orleans, La., by Jules A. Gauche, Sol. L. Wexler, Leonard Newman, Chas. A. Hartwell and Emilian Perrin.

Mr. Joseph Schenk writes from George—

[Continued on Page 128.]

1904.

FIFTIETH ANNUAL REPORT.

OFFICE OF THE NORTHERN CENTRAL RAILWAY COMPANY,

Baltimore, Md., February 14, 1905.

To the Stockholders of the Northern Central Railway Company:

The Board of Directors herewith submit their report for the year ending December 31, 1904:

GENERAL INCOME ACCOUNT OF THE NORTHERN CENTRAL RAILWAY COMPANY FOR THE YEAR ENDING DECEMBER 31, 1904, AND COMPARISON WITH YEAR 1903.

Earnings of All Lines Directly Operated:	1904.	1903.	Increase or decrease.
From freight traffic.....	\$7,994,923 27	\$7,977,120 77	I. \$17,802 50
From passenger traffic.....	1,734,372 40	1,817,418 46	D. 83,046 06
From express traffic.....	210,510 53	200,594 82	I. 9,915 71
From transportation of mails.....	110,960 04	110,628 84	I. 331 20
From miscellaneous sources.....	123,757 71	129,297 02	D. 5,539 31
From rents.....	113,679 82	75,626 42	I. 38,053 40
Gross Earnings.....	\$10,288,203 77	\$10,310,086 33	D. \$21,882 56
Expenses:			
For maintenance of way and structures.....	\$1,092,965 02	\$1,255,716 74	D. \$162,751 72
For maintenance of equipment.....	1,890,763 78	1,960,276 76	D. 69,512 98
For conducting transportation, traffic.....	146,015 06	4,613,587 92	I. 71,238 89
For conducting transportation, operation.....	4,538,781 06	154,296 34	I. 6,401 19
For general expenses.....	160,697 53		
Operating Expenses.....	7,829,253 06	\$7,973,877 76	D. \$144,624 71
Net Earnings from Operation.....	\$2,458,950 72	\$2,336,208 57	I. \$122,742 15
Deduct:			
Rentals paid roads operated on basis of net earnings.....	92,117 57	69,162 98	I. 22,954 59
Net Operating Earnings Northern Central Railway Company.....	\$2,366,833 15	\$2,267,045 59	I. \$99,787 56

To which add:			
Interest on investments.....	\$694,406 08	\$706,827 00	D. \$12,420 92
Amount received from P. R. R. Co., proportion of loss in operating Elmira and Canadaigua Divisions and miscellaneous accounts.....	34,961 03	92,677 53	D. 57,716 50
		729,370 11	D. \$70,134 42

Gross Income.....	\$3,096,203 26	\$3,066,550 12	I. \$29,653 14
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From which deduct:			
Fixed rentals of leased roads.....	\$328,062 96	\$325,597 40	D. \$2,465 56
Interest on bonded debt.....	413,255 00	485,075 00	D. 71,820 00
Interest on mortgages and ground rents.....	6,784 59	6,325 90	I. 458 69
Interest, car trusts.....	3,881 50	4,528 42	D. 646 92
Interest, general account.....	69,458 34	94,702 92	D. 25,244 58
Interest on equipment.....	1,133 36	472 80	I. 660 56
Taxes.....	151,323 15	148,758 95	I. 2,564 20
Advances to Elmira & Lake Ontario Railroad Company.....	45,172 89	53,994 35	D. 8,821 46
		\$1,019,071 79	D. \$200,384 01

Net Income.....	\$2,077,131 47	\$1,847,094 32	I. \$230,037 15
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From this Net Income for the year..... \$2,077,131 47

the following amounts have been deducted:

Series E, 4½ per cent., due April 1, 1925..	1,757,000 00		
Second general mortgage 5 per cent. currency coupon bonds, due January 1, 1925:			
Series A.....	2,565,000 00		
Series B.....	1,000,000 00		
Real estate mortgages and ground rents payable.....	109,872 77		833 33
Extraordinary Expenditure Fund.....	5,444,872 77		
Loans for construction and equipment purposes.....	750,000 00	750,000 00	
Current Liabilities:			
Vouchers and payroll checks.....	\$936,344 23		548,341 43
Interest accrued on funded debt.....	123,891 25		65,940 00
Due other companies.....	256,810 86		2,703 65
Interest matured on bonds and dividends uncollected.....	3,087 00		1,263 50
Insurance Fund.....	22,571 76	6,497 93	
Dividend payable January 16, 1905.....	687,734 00	229,244 00	
Depreciation fund for coal lands of the Shamokin Valley & Pottsville Railroad Co.....	521,393 56	15,330 00	
Profit and Loss Account.....	2,030,220 35		
	3,506,776 79	158,299 38	
	\$30,986,882 22		10,293 30

PERCENTAGE OF OPERATING EXPENSES TO GROSS EARNINGS.

	1904.	Comparison with 1903.	1903.
	76.10 per cent.	Increase.	Decrease.
			1.24 per cent.

TONS, TONNAGE MILEAGE AND FREIGHT-TRAIN MILEAGE.

	Tons carried.	Tonnage mileage.	*Freight-train mileage.
1904.....	18,051,555	1,225,624,764	3,055,128
Decrease.....	885,691	44,442,629	69,915
Percentage of decrease.....	4.68%	3.50%	2.24%

AVERAGE EARNINGS, EXPENSES AND NET EARNINGS PER MILE.

	Per ton per mile.	Comparison with 1903.	Per freight-train mile.	Comparison with 1903.
	1904.	Inc. or dec.	1904.	Inc. or dec.
	Cents.	Percentage.	Cents.	Percentage.
Earnings.....	0.652	1.0024	261.7	1.64
Expenses.....	0.483	D. 0.0065	193.8	D. 4.6
Net earnings.....	0.169	1.0029	67.9	1.10

*NOTE.—Train mileage represents mileage of freight and passenger trains only, all helping, shifting or work-train mileage and mileage made by engines and cabooses without cars being excluded.

The coal tonnage of the main line in 1904 was 5,371,302 net tons, an increase of 141,853 net tons.

The total coal tonnage to Baltimore was 928,568 net tons, an increase of 96,853 net tons.

The coal tonnage of the Lykens Valley Railroad was 517,912 net tons in 1904, a decrease of 2557 net tons.

The coal tonnage of the Shamokin Division was 2,397,685 net tons, an increase of 65,705 net tons.

The coal tonnage of the Elmira & Williamsport Railroad was 2,134,404 net tons in 1904, a decrease of 180,800 net tons.

The coal tonnage of the Elmira & Lake Ontario Railroad was 369,208 net tons in 1904, an increase of 92,574 net tons.

The aggregate movement of bituminous coal was 3,737,158 net tons, a decrease of 187,103 net tons, and of anthracite coal 4,944,376 net tons, an increase of 218,344 net tons as compared with the previous year. The tonnage of both classes amounted to 8,681,534 net tons, as against 8,650,293 net tons for the preceding year, being an increase of 31,241 net tons in the actual aggregate of coal transported, irrespective of the number of divisions over which it was moved.

The amount of grain received at the elevators at Canton was:

1904.....	5,053,358 bushels.
1903.....	12,230,836 "
A decrease of.....	7,177,578 "

The amount of grain received at the local elevator, No. 2, in the city of Baltimore during the year was 2,363,997 bushels, a decrease of 191,947 bushels.

The principal items of tonnage, besides coal and grain, were lumber, iron ore, manufactures of iron, fruits and vegetables, cement, brick and lime, and petroleum.

PASSENGERS, PASSENGER MILEAGE AND PASSENGER-TRAIN MILEAGE.

	Passengers carried.	Passenger mileage.	*Passenger-train mileage.
1904.....	4,230,379	82,192,490	2,116,436
Increase.....		4,468,595	
Decrease.....	1,567,171		12,387
Percentage of increase or decrease.....	26.89%	5.75%	0.58%

AVERAGE EARNINGS, EXPENSES AND NET EARNINGS PER MILE.

	Per passenger per mile.	Comparison with 1903.	Per passenger-train mile.	Comparison with 1903.
	1904.	Inc. or dec.	1904.	Inc. or dec.
	Cents.	Percentage.	Cents.	Percentage.
Earnings.....	2.110	D. 0.228	101.6	D. 2.9
Expenses.....	2.321	I. 0.040	90.1	I. 6.8
Net earnings.....	0.211	D. 0.268	11.5	D. 9.7

*NOTE.—Train mileage represents freight and passenger trains only, all helping, shifting or work-train mileage and mileage made by engines and cabooses without cars being excluded. †Loss.

GENERAL REMARKS.

There was a decrease both in the tonnage and ton mileage for the year, but a slight gain in the net earnings per ton per mile, and as a result the freight earnings show a very slight increase over the preceding year. While there was a decrease of \$83,046.06 in the passenger earnings, this was almost entirely offset by gain from other traffic, so that the gross earnings for the year show a decrease of but \$21,882.56. The expenses in Maintenance of Way and Structures and Maintenance of Equipment were largely reduced, and while there was an increase in the expense of Conducting Transportation, there was a net decrease in all departments of \$144,624.71, so that there was a gain in the net operating earnings of \$122,742.15.

There was a decrease of \$97,534.44 in the fixed rentals of leased roads, and also a decrease

in the interest on Funded Debt, due to the payment of your Consolidated Mortgage Bonds, which matured July 1, and also in the general interest account and other miscellaneous payments, so that after providing for all liabilities and fixed charges, including taxes, there was a Net Income of \$2,077,131.47. After providing for the regular dividends, amounting to 8 per cent., and the sum due on account of the principal of car trusts, the balance of income remaining, \$920,681.22, was applied toward the Extraordinary Expenditures for the year. The full amount of such expenditures was \$1,680,012.76, leaving a balance of \$759,331.54 to be otherwise provided for. This was charged against the proceeds resulting from the premium received on your stock allotment and the profit resulting from the sale of securities and adjustment of accounts during the year. The sum of \$750,000 was transferred out of the same account to an Extraordinary Expenditure Fund to defray the cost of future improvements and betterments, and the balance, \$158,299.38, carried to the credit of your Profit and Loss account.

The items of extraordinary expenditure for the year were as follows:

York Haven to Bridgeport, four tracks, including right of way therefor.....	\$426,849 33
Fairview Classification Yard, including building and facilities.....	\$84,316 77
Fairview to Marysville, new line and changes in Marysville Yard.....	72,381 86
Terminal facilities in Baltimore, including additional tracks.....	122,991 34
Extension of freight facilities at York.....	11,818 00
Millersburg and Sunbury, additional facilities.....	8,442 07
Right of way and real estate.....	31,575 68
Equipment—Tools and machinery.....	\$1,588,375 06
Total.....	\$1,680,012 76

It will be seen that the heaviest outlay in this connection was in the completion of your four-track system from Bridgeport to York Haven and in the payment of your portion of the cost of the large joint terminal yard at Fairview, on the west side of the Susquehanna river, of which three-fourths was borne by the Pennsylvania Railroad Company and one-fourth by your Company. This yard is now in service, although its track system is not fully completed, and is greatly expediting the movement of coal and other heavy eastbound traffic. The balance of the expenditure was on your pier and other property at Baltimore, and on additional track, yard and freight facilities, and equipment and shop tools and machinery.

There was a net increase of 37.99 miles in Company's tracks and sidings. There were 2036 tons of new steel rails and 158,101 cross-ties used in repairs and renewals.

Ten new standard freight and three new standard passenger locomotives were purchased to replace a like number of engines sold or condemned.

Three passenger cars were sold and replaced by a like number purchased from the Pennsylvania Railroad Company, and one coach added to your equipment.

Fourteen new standard cabin cars were added to the freight-car equipment, and 69 box cars, 229 gondola cars, 1 flat car and 6 cabin cars were built to partially replace cars destroyed or sold.

In order to place the operations of all the Company's elevators under one management, Grain Elevator No. 2, at the corner of Monument and Buren streets, Baltimore, which is used by the local trade, was leased to the Central Elevator Company January 1, 1905.

On November 1, 1904, at the request of the Philadelphia, Baltimore & Washington Railroad Company, the operation and maintenance of that portion of its line between Bayview and President Street Station, a distance of 3.67 miles, was assumed by your Company as a part of its Baltimore Division.

In pursuance of the action taken by the shareholders at the special meetings held November 9 and 10, 1903, the authorized capital stock of the Company was increased to \$20,000,000, and, under the terms of an allotment made May 10, the privilege was given to the shareholders of subscribing at \$62.50 per share to the amount of 50 per cent. of their holdings on May 23, 1904. Your Balance Sheet shows the increase in capital stock resulting therefrom. The proceeds of this allotment were paid into your treasury by June 30, 1904, and were applied towards the payment of the \$2,000,000 of Consolidated Mortgage Bonds, Series C and D, which matured July 1, to the purchase of the \$1,562,000 of outstanding bonds of the Shamokin Valley & Pottsville Railroad Company, of which your Company is the guarantor under the lease of that road, to the payment of the temporary loans which had been theretofore contracted for the construction and equipment purposes in connection with the four-tracking of your line between York Haven and Bridgeport, the construction of the Fairview Yard and other betterments and improvements, and to other corporate purposes. The balance of \$198,000 of Series A and B bonds issued under your Consolidated Mortgage was redeemed through the operations of the Sinking Fund provided therein with the exception of one bond not yet presented for payment.

The Insurance Fund amounted to \$842,752.66 on December 31, 1904, being a gain for the year of \$53,969.95.

Under the operation of the Pension Department there were carried on its rolls at the end of the year 136 employees, to whom there were paid pensions during the year amounting to \$30,711.34.

Under the Revised Organization Mr. Robert L. Franklin was appointed Assistant Freight Claim Agent February 1, 1904.

Mr. William A. Pratt, assistant to the Chief Engineer, having died on the 19th of September, after 24 years of faithful and efficient service, Mr. Louis H. Barker was appointed Assistant Chief Engineer, and Mr. E. B. Temple assistant to the Chief Engineer January 1, 1905.

Your Board takes pleasure in extending its thanks to the officers and employees for the faithful and efficient discharge of their duties during the past year.

By order of the Board,

A. J. CASSATT,

President.

[Continued from Page 126.]

town, S. C., to the Manufacturers' Record: "We have recently organized a building and loan association with \$100,000 capital, for which charter has been asked."

The Oklahoma Loan, Land & Trust Co. of Geary, O. T., capital \$15,000, has been granted a charter. The incorporators are Charles Hatze, T. J. Ballew and A. W. Johnson.

The Merchants and Planters' National Bank of Mt. Vernon, Texas, capital \$30,000, has been approved. The organizers are J. S. Smith, T. B. Banister, J. H. Holbrook, P. W. Maloney, M. L. Edwards and others.

The Center Title & Trust Co. of Claremore, I. T., has been organized with the following officers: William J. Stim, president; Charles H. Applegate, vice-president; Alexander A. Dennison, secretary and treasurer.

The American Guarantee & Title Co. has been organized at Ardmore, I. T., with \$10,000 capital. The officers are: Chas. Von Weiss, president; J. H. Edwards, vice-president; W. A. Edwards, secretary and treasurer.

The Bank of Hamilton at Hamilton, Ga., recently chartered with \$25,000 capital, has elected the following officers: W. S. Witham of Atlanta, president; C. H. Cook of Hamilton, vice-president, and H. P. Redwine of Senoia, cashier.

The Konawa International Bank has been organized at Konawa, I. T., with \$25,000 capital. The officers are Young Pepper, president; F. O. Harris, formerly of the Citizens' National Bank of Ada, vice-president, and V. V. Harris, cashier.

The Farmers' Savings and Trust Bank is being organized at Dresden, Tenn., with \$30,000 capital, by John A. Paschall, R. G. Maloon, A. S. Harris, L. E. Holladay, W. T. Killebrew, Dr. H. S. Copeland, J. W. Thomas and D. A. McWherter of Weakley county.

The United Surety Co. is reported incorporated at Baltimore, Md., to do a bonding and surety business with authorized capital of \$500,000, with privilege of increasing to \$5,000,000. Mr. Olin Bryan is chairman of the organization committee.

The Bank of Zebulon, to be located at Zebulon, Ga., with \$25,000 capital, has applied for a charter. The incorporators are C. H. Humphries of Barnesville, R. P. Spencer of Columbus, J. M. Means of Meansville, C. R. Gwyn, P. M. Sullivan, W. J. Franklin and E. F. Dupree, all of Zebulon.

The Mutual Benefit Life Insurance Co. of Georgia, principal office at Valdosta, Ga., will soon begin business with the following officers: Mr. W. E. Thomas, president; John F. Lewis, vice-president; L. W. Shaw, secretary and treasurer; W. C. Willis, general manager, and A. V. Simms, assistant general manager.

The Bank of Robeline has begun business at Robeline, La., with the following officers: N. A. Stille, president; W. C. Cox, first vice-president; E. S. Woodfin, second vice-president, and K. C. Smith of New Iberia, La., cashier; directors, N. A. Stille, W. C. Cox, E. S. Woodfin, Geo. C. English, J. D. Proctor and K. C. Smith.

The Industrial Company, a building and loan association, has been chartered at Columbia, S. C., with \$200,000 capital. The officers are Allen Jones, president; C. C. Wilson, vice-president; M. B. Brooks, secretary and treasurer, and G. R. Rembert, attorney; directors, C. L. Kelly, E. G. Quattlebaum, T. H. Gibbs and E. O. Black.

The incorporators of the Citizens' Bank of Owl, I. T., chartered with \$15,000 capital, are H. G. Beard, W. L. Chapman, J. W. Beard, D. A. Spears, J. A. Carmack, T. Hall, L. F. Barnhill and W. E. Jones. It is reported that arrangement is being

made to open a bank at Tulsa, I. T., capital \$100,000 or \$150,000, by Chas. W. Smith, a St. Louis banker.

The Union Building and Loan Association has been organized at Charleston, S. C., with the following officers: President, Arthur Lynah; vice-president, W. H. Mixson; secretary and treasurer, T. T. Hyde; solicitor, W. H. Parker, Jr.; directors, Arthur Lynah, J. M. Visanska, W. H. Mixson, Henry Nolte, C. H. Wulbern, C. N. Klatte and J. B. Simmons.

The Bank of Jasper has been incorporated at Jasper, Fla., with \$50,000 capital. The officers are Hon. Frank Adams, president; Dr. L. M. Anderson, vice-president, and Mr. W. S. Murrow, cashier and treasurer; directors, Hon. W. H. Greene, Hon. John F. Stewart, Hon. Frank Adams, C. Watson, Dr. L. M. Anderson, H. S. McCallum and N. Adams.

The Merchants' National Bank of New Orleans, La., has begun business with the following officers: E. S. Woodfin, president; W. E. Stewart and E. B. Harral, vice-presidents; H. T. Strong, assistant cashier. The directors are J. C. Drew, E. B. Harral, Leon Irwin, O. Lacour, F. L. Martin, H. H. Newman, Dr. L. Sexton, J. M. Sherrouse, Thos. D. Stewart, W. E. Stewart, H. T. Strong, E. S. Woodfin, R. J. Wood and J. W. C. Wright.

Articles of incorporation for the Farmers and Merchants' Bank at Leitchfield, Ky., capital \$15,000, have been filed by Dr. G. W. Armes, G. W. Long, W. O. Jones, C. H. James, H. E. James and Capt. John M. Thomas; directors, W. O. James, H. E. James, C. H. James, Dr. G. W. Armes and G. W. Long; officers, G. W. Long, president; G. W. Armes, vice-president; H. E. James, cashier, and C. H. James, assistant cashier.

The Merchants and Farmers' Bank has been organized at Claxton, Ga., with \$25,000 capital. The stockholders are Chas. G. Edwards, G. G. Tippins, D. C. Newton, R. W. White, C. R. Way, W. R. Beach, B. E. Miller, Frank Beach, N. L. Horne, G. F. Conley, Remer E. DeLoach, H. Huggins, C. M. Rushing & Co., Robt. E. DeLoach, J. M. Sconyers, J. W. Lowery, W. B. Brewton, H. W. Perkins, James M. Brewton, W. L. Edwards, W. D. Sands, W. M. Clanton, J. F. J. Smith, W. G. Warnell, G. W. Ellarbee, T. J. Edwards, R. H. Edwards, J. C. Edwards, W. C. Jackson, John M. Wood, John M. DeLoach, J. S. Smith, W. B. DeLoach, Peter Hendricks, M. J. Green, A. C. Parker, W. V. Davis, Robt. J. Travis and M. T. Edwards.

New Securities.

Abbeville, La.—The election which was to have been held February 1 to decide the question of issuing \$45,000 of water-works, electric-light and sewer bonds has been postponed until March 28.

Atlanta, Ga.—It is reported that the \$250,000 of 3½ per cent. sewer bonds have been sold at par.

Bangs, Texas.—The attorney-general has approved \$2700 of school bonds.

Buras, La.—Buras levee district has been authorized to issue \$35,000 of 5 per cent. 40-50-year refunding bonds.

Celina, Texas.—The attorney-general has approved \$10,000 of 4 per cent. 10-25-year school bonds.

Cairo, Ga.—The town has voted to issue \$15,000 of 5 per cent. water and electric-light bonds.

Camden, S. C.—It is reported that Kershaw county will issue bonds for erection of courthouse.

Cassville, Mo.—An election is to be held to decide the question of issuing \$45,000 of Barry county courthouse bonds.

Clarksburg, W. Va.—A bill has been introduced in the legislature for authority to issue \$200,000 of water-works bonds.

Cassville, Mo.—Proposals will be received by E. C. Frost, mayor, until 3 P. M. April 1 for \$9000 of 6 per cent. water-works bonds.

Colquitt, Ga.—Miller county has voted to issue \$20,000 of 5 per cent. courthouse bonds.

Corsicana, Texas.—Capt. C. H. Allyn of Corsicana has purchased at a premium of \$2700 the remaining \$130,000 of the \$150,000 courthouse bonds.

Enid, O. T.—Messrs. John Nuveen & Co. of Chicago have purchased at a premium of \$666 \$50,000 of the \$75,000 5 per cent. water-works bonds.

Fairmont, W. Va.—It is reported the city will vote on the question of issuing water-works bonds.

Fort Valley, Ga.—An election is to be held to vote on the question of issuing \$12,000 of 5 per cent. electric-light-plant and water-works bonds.

Fredericksburg, Va.—The Klots Throwing Co., silk manufacturer, has, it is reported, executed a mortgage with the Knickerbocker Trust Co. of New York to secure the payment of \$460,000 of 5 per cent. 25-year gold bonds.

Greensboro, N. C.—It is reported that Scott & Stringfellow of Richmond, Va., and Sutton, Strother & Co. of Baltimore, Md., have purchased the \$250,000 of 4 per cent. municipal improvement bonds.

Greenville, S. C.—Seasongood, Mayer & Co. of Cincinnati, Ohio, have purchased at \$10,635.25 the \$10,500 of 4½ per cent. Greenville & Laurens Railway refunding bonds.

Gulfport, Miss.—The \$45,000 of sewerage and City Hall bonds have been sold to E. R. Fulton & Co. of Chicago at a premium of \$1000.

Houston, Texas.—The question of issuing \$100,000 of bridge, school and street bonds is being considered.

Hughes Springs, Cass County, Texas.—The city has voted to issue \$8000 of school bonds.

Independence, Mo.—The city has sold to a local purchaser at par \$6000 of 6 per cent. general-revenue bonds.

Jacksonville, Fla.—Duval county is considering the question of holding an election to decide the issuance of \$400,000 of road and \$75,000 of school bonds.

Johnson City, Tenn.—The city desires authority from the legislature to vote on the question of issuing \$300,000 of water-works and electric-light-plant bonds.

Marion, S. C.—It is reported that J. M. Holmes of Chicago has purchased the \$20,000 of 5 per cent. water and sewer bonds.

Memphis, Tenn.—Shelby county is seeking authority from the legislature to issue \$1,000,000 of courthouse bonds.

Montgomery, Ala.—Authority has been granted by the city council to issue \$21,200 of 6 per cent. street and sidewalk bonds.

Pine Bluff, Ark.—The \$14,000 of 6 per cent. bonds of sewer district No. 6 have been sold to McCloy & Trotter of Monticello.

Pine Bluff, Ark.—The commissioners of the Plum Bayou levee district will issue \$250,000 of bonds. Dr. N. B. Beakley of Lonoke county is president; Jesse R. Core of Jefferson county, vice-president, and J. T. Lipscomb of Lonoke county, secretary.

Pocahontas, Va.—Bids will be received by J. F. Ward, chairman of finance committee, until 8.30 P. M. March 15 at lowest rate of interest for \$40,000 of liquidation and improvement bonds.

Statesville, N. C.—An election is to be held to vote on the question of issuing \$10,000 of school bonds and \$20,000 of electric-light, water and sewer bonds. The board of aldermen has been granted authority to issue \$20,000 of bonds to cancel the floating debt.

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Waycross, Ga.—Application will be made to the legislature for authority to issue \$50,000 of street and other improvement bonds.	
Waycross, Ga.—Messrs. Baker, Ayling & Co. of Boston, Mass., are reported to have purchased the issue of \$601,000 of 5 per cent. Atlantic & Birmingham Railway Co.'s first mortgage bonds.	

BALTIMORE, MD., FEBRUARY 23, 1905.

4. Those now holding are.

J. C. Griffin, cashier Bank of Lafayette, Lafayette, Ala.:

1. Yes, at least 25 per cent. decrease in acreage and fertilizers.

2. General agreement of the farmers, assisted by the refusal of banks to advance on cotton as freely as formerly.

3. Considerable preparations already looking to diversification of crops in this county (Chambers). This of itself will mean less cotton planted in 1905.

4. As a rule, they are. A large quantity of cotton is being held by a class of planters "who don't have to sell it." The small farmer has already sold his crop, and generally obtained good prices for it, for he sold early and fast. The large planter, as a rule, was in no hurry to sell, and he got caught; now he will hold until the price is satisfactory. This is the situation as I see it.

L. C. Fry, president Merchants' Bank, Mobile, Ala.:

1. Yes, but cannot say to what extent.

2. From combination of causes, including the two you name.

3. Cannot say.

4. No, with few exceptions.

W. A. Bibb, president Morgan County National Bank, New Decatur, Ala.:

We are not sufficiently versed in mind reading to inform you what reduction in cotton acreage and fertilizers will be made by farmers present year. The farmers are generally in good condition, and we think can hold their cotton and make another crop.

J. T. Adams, cashier Bank of Pineapple, Pineapple, Ala.:

1. Each will be reduced from 20 to 30 per cent.

2. By the farmers themselves.

3. Farmers will plant vegetables and more corn. Considerable attention paid to truck-farming.

4. Yes.

The First National Bank, Sylacauga, Ala.:

1. Twenty-five to 30 per cent.

2. Low price of cotton; farmers taking action voluntarily.

3. Corn crop will doubtless be increased to effect reduction in cotton crop; also hay and grain.

4. A large proportion of them are.

Planters and Merchants' Bank, Uniontown, Ala.:

1. Yes, of 10 per cent. at least, but increase last year was small.

2. By farmers themselves, who are planting grain.

3. Already more grain.

4. Yes.

ARKANSAS.

A. L. Smith, cashier Bank of Clarendon, Clarendon, Ark.:

1. About 25 per cent.

2. Agreement by farmers in assembly; it is probable they could not have obtained the usual advances.

3. Approximately in the ratio that cotton acreage is reduced.

4. A fair sprinkling could hold; the majority cannot.

Van Buren County Bank, Clinton, Ark.:

1. Don't think there will be much change; no fertilizers used.

2. No; farmers in fair condition.

3. Things will be about as they have been.

4. Some are and some are not.

The Bank of Fulton, Fulton, Ark.:

1. Very little, if any.

3. None.

4. Yes.

More Money in Fruits.

Leo A. Moore, cashier State Bank of Gentry, Gentry, Ark.:

There isn't any cotton raised in Benton county at the present date. All the farmers have gone into fruit-raising. If you can spare time to look us up you will find that Benton county has more apple trees planted and more in bearing than any other county in the United States. People here are making more money raising fruits and berries than in any other line.

The Hamburg Bank, Hamburg, Ark.:

The crop will be 25 to 30 per cent. less in cotton, and I think, from what I can learn, that not more than one-tenth of the fertilizer will be sold this year that was last. The farmers who have cotton in most cases can hold it.

C. C. Bacon, cashier People's Bank, Imboden, Ark.:

1. Unquestionable among the progressive farmers.

2. Yes; the best class of farmers realize it is to their interest to diversify crops, and the banks generally are restricting their loans to only the conservative class.

3. A large acreage of hay crop will be put in; also preparations will be made to sow more wheat. Land will be cultivated in crops suitable to or followed by wheat.

4. Yes; they are in good shape to hold where they think it expedient.

Merchants and Farmers' Bank, Lewisville, Ark.:

1. We think not.

3. No material change.

4. No.

The Fulton County Bank, Mammoth Spring, Ark.:

1. Yes; 30 to 40 per cent.

2. By both causes.

3. Yes; more wheat.

4. Yes; most of them.

L. L. Beavers, cashier Montgomery County Bank, Mt. Ida, Ark.:

1. There will be a reduction of one-quarter in acreage. No fertilizers used.

2. Yes, by agreement among farmers.

3. None.

4. No, not unless they can get advances on their cotton, which is not likely.

Bank of Okolona, Okolona, Ark.:

1. Yes; 25 to 30 per cent.

2. By agreement among farmers and banks and merchants refusing to extend unless acreage is reduced.

3. Farmers are organizing in earnest.

4. Most of them are; those that are not can borrow on same.

W. P. Hale, Jr., cashier Citizens' Bank, Osceola, Ark.:

1. Twenty-five per cent.

2. Refusal to advance and large farmers decreasing of their own accord.

3. Lands are being sown in alfalfa, etc.

4. No cotton being held here.

W. R. Cherry, cashier Bank of Paris, Paris, Ark.:

It seems to be the general opinion that there will be 25 per cent. reduction in cotton acreage for 1905. This will be by agreement among the farmers and partly due to the fact that merchants and banks will not furnish money as liberally in the present prices as was done this last year. There will be an increased attention to diversified farming to the same extent that cotton will be decreased. There will be some farmers who can hold the present crop of cotton, while there are some who cannot hold. We think possibly 50 per cent. of the present crop remaining unsold can be held.

City Bank, Rector, Ark.:

1. Ten to 20 per cent. acreage.

2. Both.

3. Just beginning.

4. No.

Bank of Tillar, Tillar, Ark.:

There will be only a small reduction in acreage, due mostly to the feeling of the planters that they are compelled to work more intensively and to curtail expenses. There has been no organized movement looking to reduction in this locality. The greater portion of the farmers are able to hold a considerable part of their cotton and still make another crop. The banks are giving them assistance to this end also. Indications are for a larger acreage of corn in this neighborhood.

Merchants and Planters' Bank, Warren, Ark.:

1. Reduction of fertilizers 35 per cent.; acreage 20 or 25 per cent.

2. Principally by agreement among the farmers.

3. To the extent of the decrease of acreage in cotton, very little progress as yet.

4. To some extent they are, and those who are not, and desire to hold, the banks and business men will help them to do so.

Miners' Bank, Yellville, Ark.:

1. One-eighth; no fertilizers used here.

2. Neither; low price of staple.

3. Greatest in the history of the district; fruit, small grain and truck-farming growing wonderfully.

4. Yes.

GEORGIA.

Bartow Bank, Bartow, Ga.:

1. Twenty per cent. reduction in cotton and 30 per cent. in fertilizers.

2. Yes.

3. None.

4. No.

We think the crop will be curtailed at least 25 per cent. and fertilizers 33 1/3 per cent.; more corn will be planted than usual.

The Bank of Bremen, Bremen, Ga.:

1. It is believed there will be at least 15 per cent. reduction from last year.

2. General organization of farmers and signed pledges to that end.

3. More wheat sowed than usual, and fruit trees put out.

4. They are in this county.

J. C. Wilson, cashier Citizens' Bank of Camilla, Camilla, Ga.:

There will be about 20 to 25 per cent. reduction in the cotton acreage and about the same in fertilizers. This reduction is being brought about by consent of farmers, and not by refusal of banks to advance on cotton. Farmers will increase their grain and provision crops here this year to a great extent. The farmers are in shape to hold what cotton they have in hand and make another crop with the help that is being offered them by banks and merchants.

National Bank of Columbus, Columbus, Ga.:

1. Acreage in cotton about same; decrease in fertilizers about 20 per cent.

2. Advances by warehousemen will be cut down about 33 1/3 per cent.

3. None that we know of; steady progress has already been made; raising corn, hogs, cattle and fruit trees.

4. Generally speaking, yes; this applies to our own territory, at least.

W. C. Bradley, president Third National Bank, Columbus, Ga.:

1. Yes; we think 10 to 15 per cent.

2. By the wisdom of farmers and others

interested, because they know that present prices are below cost of production.

3. There will be some increase in the grain and provision crops, and a large acreage will remain idle the present year.

4. Yes, at least a liberal share of it, and this will be done in many instances.

Effect of Resolutions.

W. L. Williamson, cashier the First National Bank, Commerce, Ga.:

There will evidently be some reduction in acreage planted to cotton the present season. Just how much this reduction will amount to will depend on the price of cotton between now and planting time. At best I should say that 10 per cent. would be a fair estimate at the present time. The acreage to be planted to cotton will depend entirely on the prospect ahead for the price to be had for the crop when it is made. The meetings being held throughout the country will have no effect whatever, so far as the resolutions being passed are concerned, except that it will in many cases cause an increase in the planting of crops, each man believing that as his neighbor and the rest of mankind will reduce their crop, it will be a fine opportunity for him to increase his. One very successful cotton-grower expressed it this way: "If I don't plant a full crop my neighbors will plant it for me, and so I had as well plant it myself." The increase in diversified crops will be in proportion to the decrease in the cotton crop. If one goes up the other will go down, and vice versa. There has been no progress made on that line so far, the farmers devoting all their spare time attending meetings for the purpose of putting the price of the present crop up. If they succeed in putting the price up to any extent there will be no increase in diversification. The farmers are undoubtedly in better shape for holding their present crop than they have ever been, but whether they are fully able or not they are at present holding it, and in many cases allowing their creditors to suffer. I have never before seen such an uniform determination to hold cotton. This holding will no doubt have a tendency to keep prices up to a higher level than if they did not hold it, but it is doubtful if it would not have been better to have let nature take its course. If the price of the cotton now in the farmers' hands is forced up to a higher level in consequence of the "holding" movement now on, it will certainly result in a larger crop being planted than would have been planted had prices gone down to a lower level, and in the long run the effect will be as bad as if lower prices had been accepted for the present crop.

If Margins Remain Ample.

B. H. Palmer, cashier the Cordele National Bank, Cordele, Ga.:

In our opinion, the farmers in our immediate vicinity have fully decided to reduce the cotton acreage materially—we believe as much as 25 per cent.—this season. Such reduction will be brought about by a general agreement of the farmers, as well as the influence of the banks and bankers of the South. We are not in position to express an intelligent opinion about diversified agriculture. We believe that a majority of the farmers in South Georgia are in position to hold their cotton until next fall, and if they are not, and the margins remain ample, the banks will carry it for them.

Citizens' Banking Co., Eastman, Ga.:

1. Yes; 10 to 20 per cent. in both.

2. We think action will be voluntary, and for the reason that the farmers believe that it is to their interest to reduce acreage.

3. The large planter diversifies, but

small farmer plants as he did 30 years ago.

4. Yes; those who could not sold early.

Clark Banking Co., Covington, Ga.:

1. Yes; 25 per cent. each.
2. Agreement upon part of farmers.
3. Some, not a great deal.
4. I think so, in the main.

Darien Bank, Darien, Ga.:

McIntosh county raises only, say, 60 bales of cotton. We think that the same acreage will be planted. Farmers who raise cotton (and buy from negroes) are in condition to hold if necessary.

Exchange Bank, Fitzgerald, Ga.:

1. Yes; 25 per cent.
2. By refusal of banks, factors, etc., to advance.
3. At chance meetings of farmers and merchants, bankers, etc., it is discussed freely, and all seem to be in favor of a reduction and of diversification.
4. Yes.

J. E. Paullin, cashier Bank of Fort Gaines, Fort Gaines, Ga.:

There will be a decrease in acreage of from 15 to 20 per cent. and a decrease in fertilizers of at least 40 per cent. This will be brought about by agreement among the farmers and by necessity. There are only a few of our farmers who will be able to hold their cotton until another crop is made. There is very little farmwork that has been done, mainly on account of bad weather and the farmers being unsettled and disgruntled over the outlook for cotton. Last year they felt that they would get a good price, and every energy was bent to make a good crop. This year it is just the opposite.

The First National Bank, Fort Valley, Ga.:

1. Yes; to what extent can't tell yet.
2. By agreement among themselves.
3. Don't know.
4. Yes.

Bank of Grantville, Grantville, Ga.:

1. Very little.
2. It will be brought about because farmers realize that a big crop of cotton brings a low price.
3. None so far.
4. Most of them, yes.

The Hartwell Bank, Hartwell, Ga.:

1. Twenty-five per cent. decrease in each.
2. By general agreement of farmers.
3. Farmers intend to make their farms self-sustaining, with a little cotton for cash needed.
4. Most of the cotton being held around here is by farmers who will not be forced to sell.

Planters' Bank, Hawkinsville, Ga.:

1. Reduction in acreage about 15 per cent.; in fertilizers about 25 per cent.
2. Decrease will be brought about principally by general agreement among farmers.
3. Increased attention to diversified agriculture about 20 per cent.
4. Farmers generally are not in position to hold their cotton and still make another crop.

H. H. Mobley, cashier Merchants and Farmers' Bank, Hogansville, Ga.:

The acreage in our vicinity will be reduced from 25 to 33 per cent.; fertilizers in the same proportion. Diversified farming will receive a great deal of attention. The majority of the farmers are not in position to hold the present crop of cotton until a new crop is made unless they receive aid from the banks or merchants.

The Labor Question.

P. E. Glenn, cashier Twiggs County Bank, Jeffersonville, Ga.:

From best sources we think the acreage in the county will not be reduced more than 15 per cent., possibly not more than 10 per cent. There will be 25 per cent. less fertilizer used this year than last in the county. The decrease will be due to the scarcity of labor and agreement among farmers. Banks, factors and merchants seem liberal in advancing for making a crop. No attention is given to increase of diversified crops. Not more than 12 or 15 per cent. of farmers are able to hold cotton and make another crop.

Inclement Weather Counts.

Josiah Blasingame, president Bank of Jersey, Jersey, Ga.:

There will be a 15 to 20 per cent. reduction in cotton acreage and a 10 to 15 per cent. decrease in the use of fertilizers in this locality the present year as compared with last year. We do not take into this account any reduction by reason of a general agreement among the planters. There are many reasons which lead us to the above conclusions. First, the good sense and judgment of the individual planter. Second, the banks and advancing merchants are putting their customers on notice now that they need not depend upon over one-half to two-thirds the amount advanced last year. Third, there has been positively no farmwork done toward preparing for a crop this year on account of inclement weather. Should the weather clear up now it would be 10 days before plowing could begin. Thus it is not possible for much farmwork to be done in February. A full crop cannot be put in beginning March 1. Fourth, our merchants report that the demand for seed oats has not been so heavy as now in 10 years, being three or four times as great as last year. Every two bushels of seed oats sold above the normal means one acre less to cotton. Fifth, the cotton mills of our county have all put on a night run, taking from the farms of the county 1000 to 1200 laborers. There has never been such a deficit in labor here in the 30 years' experience of the writer.

Many other conditions could be stated. There was 80 per cent. of the cotton grown in this vicinity sold before December 1. The remaining 20 per cent. is in the hands of people who can hold it one year or five years. The writer urged all the people to sell cotton at and above 9 cents; hence he can claim without the least degree of egotism some credit for the happy state of affairs here.

The Bank of Kingston, Kingston, Ga.:

1. About 25 per cent. of each.
2. General agreement among farmers.
4. Yes.

First National Bank, Lafayette, Ga.:

1. Think there will be about one-third reduction.
2. Solely by action of farmers in this section.
3. Much land is being prepared for strawberries and peach orchards.
4. Yes.

The Bank of La Grange, La Grange, Ga.:

1. Acreage will reduce about 25 per cent.; fertilizers 35 to 40 per cent.
2. Partly by agreement, but mostly by farmers, merchants and bankers refusing to advance; self-interest prompts a great curtailment in expenses.
3. There will be 25 to 40 per cent. more attention to diversified crops, and now preparations have been made to this view.
4. A large majority are, as this section made fine corn crop last year, and most holders are able to hold indefinitely.

The Bank of Lavonia, Lavonia, Ga.:

1. Yes; 25 per cent.
2. Agreement among farmers.
4. Yes.

Loganville Banking Co., Loganville, Ga.:

There will be a reduction of 25 per cent. or more in acreage of cotton; a reduction of not less than 20 per cent. of fertilizers. This agreement will partially be brought about by the best farmers in this section. The merchants and bankers will help to some extent. We have sown more wheat than we did last year, and the farmers are sowing more oats this year. Every farmer says that he will plant more acres in corn this year and grow corn enough to do him. Over half of the farmers in this section grow their supplies at home. We have one stock and poultry farm here now, and farmers are talking of starting others. Some of the farmers can hold their cotton and make another crop; some cannot. Some talk of holding on to their cotton and not planting any cotton this year.

Bank of Louisville, Louisville, Ga.:

1. Yes, at least 25 per cent. in acreage, and this will within itself decrease fertilizers.
2. By both agreement among the farmers themselves, and also by advice of the banks and merchants.
3. There is considerable attention paid to diversified crops by our farmers, and they will increase this.
4. Yes, generally; they have plenty of corn and in many cases meat to run them.

O. E. Dooly, assistant cashier American National Bank, Macon, Ga.:

1. Twenty-five per cent.
2. Partly by both.
3. Not much.
4. Many are.

South Will Be Benefited.

O. A. Coleman, treasurer and general manager the Georgia Loan & Trust Co., Macon, Ga.:

Our company is not a bank. We lend money extensively to farmers in Georgia and keep in touch with them and their condition. There is but little doubt but that less cotton will be made this year than last, and the majority of the farmers are holding their cotton for better prices. Our collections have been excellent, and only those farmers hold cotton who can really afford to do so, or at least arrange to do so. I want to suggest this in regard to the last year's crop, that there was an unusual circumstance, in that both the uplands and lowlands produced abundantly. It seldom happens that weather is favorable to both uplands and lowlands, so that the condition of this last year is not likely to occur again with the same acreage planted. Fertilizers are not selling as they did, and farmers are planting less cotton, as a rule, and the South will be benefited in the end by the change, as the farmers are learning to unite in protecting their interests.

The First National Bank, Marietta, Ga.:

1. Yes, very much so; no fertilizers here.
2. By agreement of farmers.
4. Yes.

The Milledgeville Banking Co., Milledgeville, Ga.:

1. Acreage fully 25 per cent.; fertilizers fully 40 to 50 per cent.
2. The decrease brought about by agreement of farmers, because money-lenders require it.
3. The planting of grain is given decidedly more attention than usual; hogs will also be raised in large numbers.
4. They are in better fit than any time

I have known of, and the banks are also better off and willing to assist.

Moultrie Banking Co., Moultrie, Ga.:

1. Acreage will be reduced at least one-fourth; fertilizers one-third.
2. Both.
3. About one-fourth more.
4. Much better than formerly.

R. H. Johnson, cashier the People's Bank, Ocilla, Ga.:

There will be a reduction of 20 per cent. in the acreage of cotton in this vicinity this season, and a like decrease in fertilizers. This reduction will be brought about by the farmers on their own accord, as they can secure money from any of the banks. Most of them will not be compelled to sell their cotton now so as to raise another crop, but are able to hold until better prices.

J. J. Dennard, president Bank of Pine View, Pine View, Ga.:

1. Reduction on cotton and fertilizers at least 25 per cent.
2. By general agreement. Bankers and factors would refuse to advance against cotton growing as freely as in former years.
3. At least 40 per cent. Can't say, but very good.
4. Fifty per cent. of them are.

R. A. Hinton, cashier Reynolds Banking Co., Reynolds, Ga.:

The acreage will be reduced. The land-owners and more prosperous farmers will reduce their acreage from 25 to 50 per cent. The average reduction by this class will be about 35 per cent. This class here make a little more than half the cotton. The tenant class will not reduce the acreage so much—some not at all; others as much as 15 per cent. The average of this class will not exceed 6 per cent. The average reduction will therefore be about 22 per cent. Fertilizers will be decreased. At this date last year about 1200 tons of fertilizers had been delivered here. This year the dealers have received about 200 tons, but have not delivered more than 100 to farmers. Farmers appear absolutely indifferent on the subject. It is not expected that this ratio of reduction will continue, but even if it should be wanted, the railroads could not deliver by planting time the amount used last year. Sentiment appears to favor a 25 per cent. cut, but the cut will exceed this. The tenant class, while not reducing much in acreage, will meet the first class more than halfway on the cut in fertilizers. This they will do largely from necessity, as dealers will not furnish them as liberally as heretofore. This reduction is due largely to agreement among the farmers, but is also urged by banks, factors and supply merchants. The acreage taken from cotton will be planted principally in corn. Some few are planning to experiment with other crops, but these will form but a small percentage. The farmers are in better financial condition than ever before in our recollection. The cotton held here is in strong hands principally, and can be carried to the next crop if they so desire.

J. C. McClain, cashier Bank of Smithville, Smithville, Ga.:

From the present outlook it seems that the cotton acreage will be reduced at least 25 per cent., while fertilizers, we think, will be reduced more than 25 per cent.

J. H. Scales, cashier First National Bank of Tifton, Tifton, Ga.:

There will probably be a decrease in acreage of cotton planted by 25 per cent. through our whole county. This is brought about wholly by agreement among farmers.

Of course, the banks are urging this move with all the argument they can put up, but not forcing them to it. There will be considerable potatoes, cane, corn and peanuts raised through this section in another year. The guano will be reduced about 15 to 20 per cent.; more used on diversified farming than formerly. As a rule, the farmers are able to go through the year making a full crop without being forced to sell their cotton. There will be some all through our section who will be forced to sell in order to make another crop, but in such cases it will be bought up by their neighbors or stored in warehouses and money borrowed thereon from the banks.

Thomasville National Bank, Thomasville, Ga.:

1. Twenty per cent. acreage and 40 per cent. reduction in fertilizers.
2. A general disposition among farmers to reduce and a conservative line of advancing.
3. General increase in provision crops, etc.
4. Yes, with reasonable advances by banks on cotton held.

First National Bank, Toccoa, Ga.:

1. Yes; 15 to 20 per cent.
2. Belief of farmer that it is to his own personal interest.
4. More than ever before.

N. M. Stephenson, cashier Oconee County Bank, Watkinsville, Ga.:

1. About 25 per cent.
2. Both.
3. The by-laws as adopted by the Cotton-Growers' Association will be adopted by the farmers of this county, and will be followed very closely.
4. We believe they are.

Winder Banking Co., Winder, Ga.:

1. Present indications are 5 to 10 per cent. reduction in acreage and 25 per cent. decrease in fertilizers.
2. Both; principally the former.
3. "Nothing doing" now. "The sunny South is froze up." Ten to 15 per cent. increased attention will probably be given.
4. About 25 per cent. of those now holding in this vicinity are.

Wm. W. Cook, cashier Johnson Banking Co., Wrightsville, Ga.:

We think that there will be reductions of about 20 per cent. in the acreage on cotton in our vicinity and the decrease on fertilizers of about 25 or 30 per cent. The decrease was brought about by a general agreement among the farmers, or, rather, a dissatisfied feeling on the present price of cotton. Our farmers are in financial condition to hold their cotton and still make another crop.

INDIAN TERRITORY.

J. A. Bivens, president the City National Bank, Ardmore, I. T.:

I think there will be a reduction in the acreage planted in cotton this year of from 10 to 15 per cent.. There is no fertilizer used here. Decrease will be brought about by agreement among the farmers. There is quite a feeling in favor of diversification of crops. Farmers are generally able to hold what cotton they have on hand. There is not more than 10 per cent. of crop held here.

Bank of Bixby, Bixby, I. T.:

Acreage will be reduced probably 15 per cent. We are already doing diversified farming here.

Thos. H. Dwyer, president Citizens' Loan & Trust Co., Chickasha, I. T.:

There will be little if any reduction in acreage here in this part of the country, as

the crop is planted here considerably later than at other places, and we look for about the same acreage here the coming season as we had this past season. Our acreage for the crop of 1904-1905 was fully 500 per cent. more than the acreage of 1903-1904.

The banks here are perfectly willing to carry reasonable lines on the product, and are doing it at present.

Quite a good deal of attention is being given to "diversified" farming here in the past year or so, and the farmer has begun to realize that it is a risky business to "put all his eggs in one basket," and for that reason they are successfully raising cotton, corn, wheat, oats, cattle, hogs, fruit and truck of all kinds, which readily find a market right here at home. The writer lived in Southern Texas for 40 years and saw the people of that country continually stick to one crop, and the result is there has not been the prosperity in that part of the country that there has been in other parts where the farmer diversified.

The farmers here are not in a position to hold their crop without accommodations and still go on with the coming crop. This is a new country, and the people are not as well fixed as in older settled countries, but no better country can be found for diversified farming than the Indian Territory, as the lands are new, rich, and very productive.

The First National Bank, Comanche, I. T.:

1. One-third to one-half.
2. General agreement among farmers; banks know they can't pay debts with five-cent cotton.
3. Wheat, oats and other cereals.
4. Yes, by help of banks to make this crop.

C. B. Fletcher, secretary and treasurer Eufaula Trust Co., Eufaula, I. T.:

There will be a decrease of about 25 per cent. in cotton acreage brought about largely by the agreement of the farmers.

Will Raise More Corn and Hogs.

H. A. Kroeger, cashier First National Bank, Francis, I. T.:

There will be a reduction in the cotton acreage of about 25 to 30 per cent. the coming year. No fertilizers are used here. The reduction will be the result of the desires of the farmers, without any pressure on the part of the banks or the merchants. Nearly all the farmers will diversify, putting in potatoes, melons, cantaloupes, and a great many will raise more corn and hogs to eat the corn. The most of the farmers holding cotton are in shape to hold until the next crop; some with assistance, and a great many without any. It is safe to say the acreage in cotton will be fully 20 per cent. less here this year than it was last, including in the estimate the new land that will be put in, and which under the most favorable circumstances does not produce more than one-quarter bale per acre.

First National Bank, Holdenville, I. T.:

1. No.
2. No.
4. Not many.

Not Forced to Sell Surplus.

W. F. Miller, cashier First National Bank, Hugo, I. T.:

The farmers have not begun to make any preparations as yet to plant their crop, and we believe the crop this season will be somewhat limited as to acreage. The farmers, as a rule, are not forced to sell their surplus crop, and some are talking of holding for better prices if they have to hold till next fall. We are having the coldest weather for years, and of a much longer duration, and we think the

cattle will be in bad shape, as they will be forced to survive without feed, as the stock men in this part of the country expect the stock to nestle, and it being too cold and icy for them to get anything to eat, they will of necessity die.

Newcomers Will Average Up.

T. P. Martin, Jr., cashier the First National Bank, Marlow, I. T.:

I do not look for a reduction of the acreage as a whole in this vicinity, as the land is being more thickly settled, and the newcomers will more than average up what might be cut down. However, many will try diversification, and past experience will doubtless prove a valuable lesson in many ways to farmers as well as bankers in the cotton-raising districts.

This matter will rest entirely with the farmer. As a rule, the cotton farmer mortgages his crop to the merchant or banker for supplies, and the larger the acreage, naturally the better it is looked upon as collateral. The banks are well able to carry them through, but the farmers are, many of them, living on money borrowed on this cotton at the beginning of the season, and are now asking for loans to carry them through this year's crop. Cotton baled in this vicinity is a poor collateral, as there are no warehouses, and very little insurance is carried.

More corn, oats, wheat, broom-corn and other products will be planted. This being a fine corn country, farmers are beginning to look more to the hog to bring them money. They see in other crops than cotton something they can use at home, and are wise to see it.

The farmers, as a rule, are able to go through with usual aid from local banks, but they do not get the much-talked-of 6 per cent. rate for money, as country banks are forced to pay 6 per cent. to other banks for what they borrow, and banks are "like the farmers, they want the dough." The writer is not in favor of farmers holding their cotton. Cotton farmers are nearly always in debt, and when they have a price for their crop that will bring them out with profit they should turn loose. They want their loans made on cotton for about 30 days at a time, hoping for a rise, and as soon as any rise comes they will doubtless meet it by turning loose some. If all the cotton could be gathered where it could be held absolutely a great step would be taken to make a rise in price. If there is an extra third of a crop now on hand and cotton at 6 1/4 here it will take at least a 50 per cent. reduction in acreage to bring a price higher than this next season. The matter of carrying the cotton rests with the country bankers, and they, in turn, must receive aid from their city friends for funds. A great deal of deposits now in banks are from those farmers who have sold already, and much of this money has been and will be loaned to those who are holding, and when those who have sold draw out their money they will, in turn, want to borrow, and there will be doubtless an unusually heavy demand for money made upon the small country banks in the farming districts. Holding cotton or advising it is teaching the farmer to speculate, and the cotton farmer, as a rule, being a man of limited means, has not the advantages of the education and experience that would make him a successful speculator.

Owasso State Bank, Owasso, I. T.:

1. Yes; there is no fertilizing done in this section of the nation.
2. Solely by the farmers, account low price of cotton.
3. To answer this will say 1904 we had about 2000 acres in cotton tributary to

our town, and 1905 won't be 500 acres put out, all told.

4. Cotton all sold to ginneries by the farmers here the past year.

F. A. Vickery, cashier the Citizens' Bank of Minco, Minco, I. T.:

In this neighborhood the acreage will be about the same as that of last year. Farmers are, as a general thing, now holding their cotton, and are well able to do so.

The National Bank of Commerce, Pauls Valley, I. T.:

1. Twenty per cent. decrease. We use no fertilizers.
2. From all of these causes.
3. More oats, corn and potatoes will be raised.
4. Very little being held, and farmers are in shape to hold what they have.

First National Bank, Quinton, I. T.:

1. The crop will be reduced about 25 per cent.; no fertilizers used.
2. By agreement of the farmers and the low price of cotton.
3. There will be a larger crop of corn planted, and potatoes will be grown extensively.
4. The great majority are.

E. T. Bradley, cashier the First National Bank, South McAlester, I. T.:

This is a new county, and cotton and corn mainly raised in this district. I think the people will put in all the cotton they can raise. We have no county school districts, and every man does as he pleases about crop matters without regard to sentiment or prospects.

Tenants Let Go Early.

Dave L. Guyette, secretary and treasurer the Guardian Trust Co. of Tahlequah, Tahlequah, I. T.:

We believe there will be a slight reduction in the cotton acreage the coming year, but it is absolutely guesswork to say to what extent. The decrease will no doubt be caused by the violent slump in cotton prices the past winter, which, of course, would cause the banks and merchants generally to reduce the amount of credit usually advanced. We believe that many of the farmers, especially in our territory, will take up more diversified agriculture and perhaps devote greater attention to the fruit crop than heretofore. There is very little cotton being held here, as most of our farmers, being tenants, are unable to hold their cotton.

The Southern Trust Co., Tishomingo, I. T.:

1. No agreement for reduction among farmers; no decrease of products probable.
2. Banks will loan freely to cotton-growers.
3. Potatoes are being talked up; farming is not diversified, and not likely to be.
4. No; they are asking larger loans than they called for last spring.

Weleetka National Bank, Weleetka, I. T.:

1. Probably one-quarter.
2. By both.
3. We believe four-fifths of the farmers will diversify.
4. No.

J. M. Dickinson, cashier Wapanucka Banking & Trust Co., Wapanucka, I. T.:

We will decrease cotton acreage this season at least 25 per cent.; no fertilizing is used. We will plant 500 or 600 acres Irish potatoes and put in more corn, oats, and diversification will be much more than at any other season. The banks have extended all accommodations that they could afford, but they are not in position to extend sufficient loans to carry all that was

offered. The farmers in the territory are not of that class that can carry over their cotton, and they will, as a general rule, dispose of nearly all this year's crop by March 1.

First National Bank, Wynnewood, I. T.:

1. Fifteen to 20 per cent.
2. By agreement among the farmers.
4. Yes; very little held in this community.

The Southern National Bank, Wynnewood, I. T.:

1. About one-quarter decrease.
2. By agreement of farmers.
4. No.

LOUISIANA.

A. J. Golden, cashier First National Bank, Abbeville, La.:

There will be a reduction of not less than 10 per cent. nor more than 25 per cent. in the acreage of cotton in this section. A closer estimate at present is not possible, owing to adverse weather conditions. The decrease will be due to discouragement resulting from the present depression in the staple. The decrease in cotton acreage will result in a greater acreage in cane and corn. Farm work has been much delayed by unfavorable weather. Those who now hold cotton are, as a general rule, able to carry it, and show a strong disposition to do so.

Diversification is on the increase in this section, and it is only a question of a short while before Vermilion parish, Louisiana, will be remarkable for the great variety of its products.

Bastrop State Bank, Bastrop, La.:

1. Reduction in acreage will be 15 to 20 per cent.; no fertilizers used.
2. Decrease in cotton acreage caused by unwillingness of merchants to advance as liberally as in the past.
3. Acreage of corn and hay increased.
4. Farmers who have their cotton now are able to carry it over, and are holding to it very tenaciously.

O. R. Denton, cashier Bank of Benton, Benton, La.:

From the best information we are able to obtain, we believe the reduction in acreage in cotton in this vicinity will be about 20 per cent. The reduction in fertilizers will probably be about the same.

Behindhand in Work.

L. C. St. Germain, cashier the Breaux Bridge Bank, Breaux Bridge, La.:

The farmers are so far behind with their crop work this year as compared with last year that it is almost impossible to make anything like an accurate report. In the latter part of December, 1903, generally speaking, all the farmers had their land broken and in good condition. At this writing not one-tenth of the farmers have begun their field work. There will be a small reduction in the acreage of cotton, and sugar-cane planted instead. Here fertilizers have never been used in cotton lands. There is no agreement among the farmers, but they seem to realize the fact that diversified crops is better. The banks will carry their customers until January, 1906.

The Price at Planting Time.

R. J. Marshall, cashier Merchants and Planters' Bank, Bunkie, La.:

Relative to reduction of cotton acreage, very much depends upon the price of cotton at planting time. There seems to be considerable disposition to reduce acreage, though so far there has been no agreement among the farmers to that effect. A low price for cotton during the planting season will cause a material reduction in cot-

ton acreage, while, on the other hand, an advance about that time will cause the majority to forget their resolutions. Eighty per cent. of the cotton raised in this section has passed out of the hands of the producers. Generally speaking, they are in a prosperous condition. Of the 20 per cent. of the crop remaining in the hands of the producers, half of it can be held a year or longer; the other half will likely be sold in the next 60 or 90 days. Notwithstanding collections have been good, the merchants and bankers will be much more conservative in their advances to cotton planters this season.

Alexander Pellerin, cashier People's Bank, Breaux Bridge, La.:

1. Yes, about 30 per cent.
2. By general agreement and advice of merchants and bankers.
3. To replace the 30 per cent. decrease in cotton.
4. There is but very little cotton sold in this section.

Little Attention to Diversification.

H. H. Forrester, cashier Bank of Clinton, Clinton, La.:

We do not think there will be any material decrease in acreage nor in the use of fertilizers. The farmers in this vicinity have not gone into any agreement to reduce the acreage, and the majority of them are able to get what they might need from the banks or merchants. With few exceptions the farmers that have held cotton are in a position to do so. There will be very little attention paid to an increase in diversified agriculture.

J. J. Stovall, first vice-president Dodson State Bank, Dodson, La.:

The decrease in acreage and fertilizer will be 25 per cent. or more. This will be brought about by general agreement among farmers; they all seem to be willing to decrease acreage and fertilizer and plant more corn, potatoes and other products. The farmers are in shape to hold their cotton and make another crop, and will hold it for better prices. Lots of them do not owe a dollar.

First National Bank, Franklin, La.:

Probably 300 bales made in the parish of St. Mary in 1904. None will be made in 1905. This is strictly a sugar section.

C. O. Ferguson, president the Homer National Bank, Homer, La.:

There will be a reduction of about 50 per cent. in fertilizer and about 15 per cent. in cotton. Advancing will not be as free as past season, and this, of course, will have its effect on the amount of decrease. Diversified agriculture will receive considerable attention in this section. A majority of the farmers are able to hold their cotton and still make another crop.

J. L. Dolhond, cashier Bank of Independence, Independence, La.:

1. Yes, from what farmers state, probably 20 per cent.
2. Partly by both.
3. Not yet perceptible here.
4. No; will need some assistance.

T. M. Mathews, cashier Catahoula Bank, Jonesville, La.:

We think there will be a material reduction in the cotton acreage in this vicinity this year. This will be brought about by a combination of the two influences you name—the refusal of as liberal advancement on the crop as in previous years and the farmers' own accord. We do not know to what extent the farmers will diversify. No cotton is being held over in this vicinity, all of it having been marketed.

P. M. Lamberton, cashier Kentwood Bank, Kentwood, La.:

From my observation there will be a reduction in acreage from 25 to 30 per cent. on what was cultivated last year. The decrease in use of fertilizers will be even greater, running, I should judge, from 40 to 50 per cent. of last year's consumption. The decrease will be due both to a disposition on the part of farmers to decrease the acreage and use less fertilizer, and to the fact that merchants, etc., are not making as great advances as last year. Diversified agriculture is being practiced more largely than ever before. It is my opinion that the farmers who are now holding cotton are financially able to hold it and make another crop, because I believe that the farmers who were burdened with debts and maturing obligations have long ago been forced to sell their product.

First National Bank, Lake Arthur, La.:

Very little cotton raised in this vicinity. Rice is the main crop, although considerable attention will be given this year to diversified farming. Considerable sugarcane, oats, corn and truck will be raised in this immediate vicinity.

J. W. Took, Jr., Lake Providence Bank, Lake Providence, La.:

There will be a good decrease in cotton acreage, probably fully 25 per cent. less than last year. There will also be a great deal more grain planted than in former years. This condition is brought about by the low price of cotton and by the educational work being done in the interest of a decrease in acreage. Do not think the commission merchants and banks will be as liberal as last year.

The Bank of Leesville, Leesville, La.:

1. Cotton about 25 per cent., I presume.
4. Partially.

Royal Dennis, cashier the Bank of Logansport, Logansport, La.:

I expect a reduction of 20 to 25 per cent. cotton acreage the present crop year from last, and from 15 to 20 per cent. increase in other products, principally in corn. I do not think that there will be used this year more than 70 per cent. of the amount of fertilizer used last year. Bankers will not be as free to advance against cotton growing as last year. We have made little or no advances yet, but expect to advance about half of last year. We wish to encourage diversified farming and discourage exclusive cotton-growing. We want to see our farmers grow their own forage, truck and grain and raise their own meat. We will be more inclined to assist a diversifier than an exclusive cotton planter. Probably 10 per cent. of last year's yield will be held by farmers who are able to carry it over, provided they cannot get for it at least one cent over present prices by June 1.

Planters in Good Shape.

S. M. Gibson, cashier the Mer Rouge State Bank, Mer Rouge, La.:

There has been no general agreement among planters yet. But all the planters I have talked with say they expect to cut their cotton acreage 15 to 25 per cent. and plant more corn. Three-fourths of the cotton held here parties are able to hold indefinitely. Our planters are all in good shape. Do not use fertilizer here.

J. W. McDonald, cashier Bank of Webster, Minden, La.:

1. Small decrease in acreage; very large decrease in fertilizers.
2. More by prudence of farmers avoiding debt.
3. In its infancy here; slight increase.

4. Most of them who are now holding are able to hold for another crop.

A Great Deal of Alfalfa Seed.

J. C. Trichel, Jr., cashier Exchange Bank of Natchitoches, Natchitoches, La.:

1. Yes, we think there will be at least 25 per cent. reduction in acreage, and probably 50 per cent. reduction in fertilizers.
2. Both.
3. To a much greater extent than ever before; a great deal of alfalfa seed already purchased; a larger corn crop contemplated than ever before; considerable attention being paid to hogs, etc.
4. A great majority of them are.

Appreciating the great work your magnificent journal is doing for the South, and wishing you all the success you deserve.

Citizens' Bank of Louisiana, New Orleans, La.:

1. Depends upon the crop conditions.
2. Neither.
3. Can't say.
4. Cotton is good collateral for 5 cents a pound, and they can hold until next crop conditions are determined.

B. J. Morey, cashier Bank of Patterson, Patterson, La.:

There is practically no cotton raised in this neighborhood. Sugar-cane is the prevailing crop here, and last year's output of sugar was about the heaviest on record. Corn is also raised here, being consumed locally.

People's Bank, Plaquemine, La.:

1. This is what all the cotton planters tell us.
2. By general agreement among farmers principally.
3. We believe it is their intention to provide for the necessities of life first and let their cotton be their cash crop.
4. The majority are.

While some cotton is raised in this neighborhood, the principal crop is sugarcane.

J. A. Gourrier, assistant cashier Bank of Plaquemine, Plaquemine, La.:

1. About 25 per cent.
2. Agreement among farmers.
4. There is very little cotton in this section.

H. P. Mitchell, cashier the Merchants and Farmers' Bank, Ponchatoula, La.:

We are not in the cotton section, hence can give no positive information regarding decrease in acreage. We feel confident, however, that the acreage will be materially reduced all over the cotton States.

W. J. Bayersdorffer, cashier First National Bank of Shreveport, Shreveport, La.:

There will be a reduction in acreage in cotton in our vicinity and a decrease in fertilizer. We believe that the reduction in acreage of cotton will be approximately 15 per cent. or more. As to fertilizer, it will be fully 25 per cent. This decrease will be brought about partly by an agreement amongst farmers and planters, and somewhat through the influence of the factors, etc. There will be an increased attention to diversified agriculture in the way of planting more corn, vegetables, etc. We believe that the farmers, taken on an average, are in a financial shape to hold their cotton and still make another crop.

For Strong Organization.

Joseph S. Rodriguez, cashier Bank of St. Joseph, St. Joseph, La.:

We feel confident there will be a decrease of the cotton acreage in this parish (or county) of at least 15 per cent. There is no fertilizer used here in the cultivation

of cotton. The reduction of acreage will be caused principally by general agreement and a realization by the planters of the absolute necessity of reducing the production of cotton to a figure that will equal the demand for same. The recent cotton convention held in New Orleans is having a far-reaching effect, and if the agitation is kept up it will bring about a revolution—a much-needed one—in the cotton business of the South. Such strong journals as the *Manufacturers' Record* should keep the question of organization continually before the Southern cotton people until every cotton-growing county in the South joins the Southern Cotton Association.

As a Surplus Crop.

S. P. Hulbert, cashier Bank of Zwolle, Zwolle, La.:

There will be some reduction in acreage of cotton; to what extent it would be hard to say at this time. It will depend to a very great extent upon future developments in the disposition of present stocks in the hands of those in concentrating points. If the New Orleans crowd continue to throw cotton on the market in the future as they have been doing for the past 10 days it will be very hard to say what the outcome will be. The decrease in cotton acreage will not be caused from the fact that the merchants will not give as liberal advances on 1905 business as they did for 1904. The decrease will come about from general conditions, and low prices during March will have more to do with it than anything else; with a low market there will be a decrease (prices ruling under 8½ cents at tidewater points).

There is considerable diversification of crops at this point, and is on the increase, very much to the advantage of the farmer, who, once he is able to demonstrate for himself the difference in his earning power by the diversification of crops over all cotton, will very soon use cotton as a surplus and not his sole crop for market. Farmers in this district are in better condition today than they have ever been, for the simple reason that 80 per cent. of them have their 1904 obligations paid and still have cotton on hand, which, if compelled to, could very easily take the present low prices and realize enough therefrom to make the 1905 crop on a cash basis, but some of them prefer to borrow money and hold the staple, in hopes they will be able to realize more than present prices. The sooner the planters of the South make up their minds to raise cotton on an eight-cent basis the sooner they will be in position to handle their business as it should be. Speculation in 1903 has been the cause of many a good planter being misled on account of thinking that 1903 prices had come to stay; could not realize the difference between a speculators' and a supply and demand market.

MISSISSIPPI.

J. C. Stanley, president Bank of Booneville, Booneville, Miss.:

1. Twenty-five per cent., at least, reduction.
2. By agreement among farmers.
3. Nothing doing yet, only the farmers organizing.
4. A large percentage of the owners of cotton are in shape.

F. F. Becker, cashier Commercial Bank, Brookhaven, Miss.:

1. Yes, acreage fully 25 per cent.; fertilizers from 25 to 50 per cent.
2. Farmers disposed to decrease; banker and merchant will not advance on same ratio as heretofore.
3. Will plant more corn, oats, peas, potatoes, and pay more attention to stock.

4. Yes, with assistance of banker and merchant.

The First National Bank, Canton, Miss.:

1. Twenty-five per cent. cotton; 50 per cent. fertilizers.
3. Twenty-five per cent. in corn and hay.
4. Yes.

Mississippi State Bank, Canton, Miss.:

1. Yes, about 10 per cent.
2. No agreement, but general independent reduction and inclination of banks not to loan as much as last year.
4. A few only.

W. M. Jordan, cashier Leake County Bank, Carthage, Miss.:

1. Twenty-five per cent. by nearly all the farmers in both acreage and fertilizers; about 10 per cent. of balance will reduce acreage 50 per cent. and use no fertilizers at all.
2. By general agreement. In most cases farmers don't need to borrow money; if they do, the banks will advance them money on it.
3. Nothing been done yet, but farmers say they are going to plant the decreased acreage of cotton in corn, peas, oats, etc.
4. In most cases they are; the others can borrow \$25 per bale on their cotton and make this crop.

The First National Bank of Clarksdale, Clarksdale, Miss.:

1. Twenty per cent.
2. Necessity of the farmers and agreement as well.
3. More corn and hay and less cotton; do not raise anything else here.
4. Yes, if they so desire.

More Corn and Hay Without Affecting Cotton.

W. E. Meek, cashier Bank of Commerce, Clarksdale, Miss.:

In this vicinity there will not be, in my opinion, any appreciable reduction in cotton acreage. This section, being in the Delta, where the soil is rich and strong and comparatively new, has never used enough fertilizer of any kind to render the increase or decrease in its use here of value to you in your inquiry. Cotton being by far our best crop, we have done almost nothing in the direction of diversification. It is probable that more corn and hay will be planted this year, but the increase will not affect the cotton acreage enough to be noticed. There is some alfalfa sown, but this is in the nature of an experiment, and the chief value to be attached to it is that it is an indication of a tendency toward diversification. As a rule, the farmers in this vicinity will not be able to hold their cotton longer than spring, and most of it will be marketed before the end of June; however, the condition of the planter in this vicinity, generally speaking, is good. A large per cent. of our cotton was sold early, causing us to receive a very fair average price for the crop. We have more mules and better ones than ever before in our history, greater quantities of corn in our cribs, more tenant-houses and better fences; hence there is no reason for taking a pessimistic view of the future.

I wish to express my grateful thanks for the good work your paper has done and is doing for the South in exploiting her exceptional advantages, in encouraging her enterprises, in encouraging and supporting movements looking to her welfare, and in cultivating a rational and healthy optimism with regard to her future. If every business man in the South would subscribe for the *Manufacturers' Record* it would be a great benefit to him and his country.

Dependent Upon Price.

J. F. Provine, cashier Coffeeville Bank, Coffeeville, Miss.:

We think there will be a decrease of from 10 to 25 per cent. in cotton acreage, dependent upon price at planting season. If price is 6 cents there will be 25 per cent. decrease; if 7½ cents, decrease will not be near so great. This decrease will be caused more from fact that farmers realize that price will not make it profitable and will plant more corn and hay. The agreement between farmers will not likely affect acreage much, as only a part of them will sign the agreement. Still there is a very marked harmony of sentiment among farmers, and if they do organize as closely as some think they may cut acreage 25 per cent. Fertilizer will be decreased about same proportion as acreage. There is some tendency to diversify crops, but to no marked degree yet, but low-priced cotton will develop it very rapidly. Farmers who have their cotton will be able to get all the money needed to make this crop without selling if they so desire. This section is in very prosperous condition, and farmers are independent, as a rule. We never expect to see crop conditions as good as last season for cultivation and development of cotton; so we do not think with same acreage crop would be 25 per cent. less than last season.

Still Holding Entire Crop.

B. A. Williamson, cashier Pearl River Bank, Columbia, Miss.:

Judging from the present outlook in this section, there seems to exist a prevailing sentiment that a material decrease in the cotton acreage will undoubtedly be made, which means also a reduction of quantity of fertilizers used. Just to what extent the above decrease will reach cannot be determined as yet with any degree of certainty; however, the prevailing opinion is that a very marked reduction will most assuredly follow the past season's depression in values of the staple. The conclusions will be the result in a measure of a general agreement among the farmers, and also of a disposition of banks and business houses to adopt a policy of retrenchment and more rigid conservatism in making advances on prospective crops. A large per cent. of the farmers of this vicinity are still holding their entire crop, and are in a position financially to hold indefinitely if present level of the market continues. There is considerable agitation of the question of diversifying crops throughout this section of the State, and more especially along the lines of railroads.

Farmers Now Revelling.

C. A. Johnston, president First State Bank, Columbus, Miss.:

There will be a decrease in cotton acreage in this vicinity of I shall guess about 10 per cent. from last year, and the same in the use of fertilizers. I think it will be the result of discouragement induced by the present low prices for cotton. There is no organization among farmers nor agreement, but their action will conform to the intelligent public opinion. Bankers and merchants do not influence them, as they are independent of both, having sold probably 70 per cent. of the crop at remunerative prices, liquidated yearly accounts, made a supply of feedstuffs, and will not need any advances. Our farmers are "mightily set in their ways," and I doubt if any attention will be paid to outside advice further than the reductions above referred to. They seem to raise what they want or come to town and buy it and pay for it. We are not lending any money on cotton, because we have no applications for it, though cotton is the best

collateral here. The outgoing crop is the gift of nature. The spring was dry, the summer wet, just wet enough, the fall ideal, the price right; cotton being a water plant, it revelled in the summer; this being a "dry State," Mr. Farmer picked, packed and sold, and is now revelling some himself. This he has only been able to do during the last five years, previously prices being below cost of production.

Bank of Como, Como, Miss.:

Our merchants and planters met Saturday, in response to the call of the Cotton-Growers' Association, and determined to reduce the acreage 25 per cent. This was brought about by general agreement of the farmers, and not from the refusal of the banks to make advances. We do not use enough fertilizers in this county for it to be a factor. The banks and merchants are willing to aid the farmer in holding his cotton.

Crystal Springs Bank, Crystal Springs, Miss.:

1. Not in acreage, but in fertilizers.
2. Less fertilizer will be used through failure of planter to buy it.
3. Probably more corn grown.
4. We think so.

Holding Cotton of Themselves.

Grenada Trust & Banking Co., Grenada, Miss.:

All of the large planters of cotton will certainly reduce their acreage 25 per cent., while some of the small ones will not. As a whole, I believe it will be reduced over the country 20 per cent., and will be done by agreement among the farmers. Most all of the farmers in this county are holding their cotton with their own means, and believe they are in shape to hold it on through the season. They are not asking much help from the banks.

Bank of Hazlehurst, Hazlehurst, Miss.:

1. At least 20 per cent.
 2. Labor question. Decrease in advance and raising of other products will cover the decrease in acreage.
 3. Truck-farming, stock-raising, etc.
 4. Generally, yes.
- A great many small farmers and people who rented land last year are going back to the factories, saw-mills and other occupations.

J. L. Cooke, cashier Hernando Bank, Hernando, Miss.:

1. Slight; no fertilizers used here.
2. Tight money will decrease crops.
3. Very little.
4. Some of them; cotton will be sold before another crop is planted.

The Low Prices.

B. W. Thorne, cashier the People's Bank, Holly Springs, Miss.:

At present it is hard to estimate the reduction in acreage, but the indications are that it will be about 20 per cent. This decrease will be brought about by the general prosperity of some of the farmers and the present prices of cotton, which will not stimulate them to plant as they did last year. The decrease will not be brought about by a general agreement among the farmers nor by a refusal of the banks to advance against cotton growing, but by a lack of the unusually high prices which caused the large acreage of last year. Farmers are in better shape to hold their cotton than they have ever been before.

Could Carry Through Another Season

R. Griffith, cashier the Merchants' Bank, Jackson, Miss.:

We believe there will be a material reduction in the acreage of cotton in this

vicinity, and the fertilizer plants tell us that they are not making anything like the usual amount of sales of fertilizer. This decrease in acreage will be considerably influenced by the banks and factors and others who advance to cotton-growers declining to furnish as much as they have been doing heretofore. There is also a very strong feeling among the farmers themselves that it would be better for them to not raise so much cotton and diversify their crops. It is my belief that a majority of the farmers who are now holding their cotton could carry it through another season if they decided to do so.

Bank of Kilmichael, Kilmichael, Miss.:
1. About 15 per cent. reduction in acreage and 25 per cent. in fertilizers.

2. Both.
3. No progress made yet. Reduced acreage will be used for that purpose.
4. The majority of them are.

H. W. Watson, cashier Lexington Banking & Real Estate Co., Lexington, Miss.:

1. Slight reduction in acreage and 50 per cent. reduction in fertilizers.

2. Rather to a general feeling that it won't do to depend entirely on cotton, and more feedstuffs will be raised.

3. To a largely-increased extent; much sweet potatoes, molasses, etc., will be raised.

4. A large number of the white farmers in shape to rest easy on cotton, and the only hard pressure is on the negroes mainly supplied by merchants or banks.

Receipts at local compress some thousand bales short of last year, and I do not believe sufficient cotton is held in county to make good shortage; that is, this immediate territory will fall short of last season; the community is in good shape, however, and gives an average year; while times will be "close," they will not be "hard."

The Bank of Commerce, Lexington, Miss.:

1. Twenty-five per cent. reduction.

2. Both.

3. General agreement to raise more of other crops than cotton.

4. They are, with what assistance will be given by the banks.

Merchants and Farmers' Bank, Macon, Miss.:

1. About 20 per cent. decrease in acreage; 20 per cent. decrease in fertilizer.

2. Weather conditions and agreements.

3. Twenty per cent. more corn.

4. A great portion of them.

Farmers Independent.

R. F. Learned, president Britton & Koontz Bank, Natchez, Miss.:

The farmer (in contradistinction to the planter) is virtually independent of banks and of merchants. He can and we think will hold his cotton until the price is satisfactory to him, regardless of conventions. We think there are quite enough independent farmers to hold 1,500,000 to 2,000,000 bales out of the market and out of sight who will have to be reckoned with by the bears and bulls in either extreme.

Reduction of Fertilizers.

W. A. Gill, cashier Magnolia Bank, Magnolia, Miss.:

Efforts are being made here to reduce the acreage to be planted in cotton during the coming season, and indications point to a 25 per cent. reduction. The use of fertilizers will be reduced 50 per cent., if sales since October are any indication. The reduction is apparently by common consent. Banks are furnishing money on

good security as heretofore, but the farmers appear to be beginning to realize a smaller acreage is better. Very little attention will be given to diversified agriculture here this season except trucking along railroad lines and the raising of corn and food supplies for home consumption in the interior. Very few of the farmers are in financial shape to hold cotton and raise another crop without getting as heavy advances as cotton held and coming crop will stand.

Merchants and Planters' Bank, Natchez, Miss.:

1. There is expected a reduction in acreage in cotton this season; 25 per cent. is freely talked of, but our individual opinion would place it at 10 per cent.; no fertilizers used in this vicinity.

2. Reduction in acreage will result both from refusal of merchants and banks to advance as freely, and also voluntarily by some of the planters.

3. Nothing has been done yet in this immediate vicinity towards diversification.

4. Farmers are in better position to hold cotton this year than for some time past; however, this varies as to extent of time. Our opinion is that general acreage will be reduced about 10 per cent.; this amount will be diversified accordingly. Merchants and bankers reduce loans this year, but acreage will not be reduced on this account in exact proportion, because cotton can be made for less money per bale than it cost to produce last season, brought about, of course, by leniency of advances; consequently, if a planter borrow 50 per cent. less than last season to produce on he will economize undoubtedly and plant for 25 per cent. less than last year. With the work of the National Cotton Association before us and their persistent and systematic methods to secure reduction to the extent of pledges from the farmer, it is unreasonable to believe that reduction can be avoided. As to size of crop, nature controls the entire situation, and on this we can only theorize.

Chas. A. Roberts, manager People's Bank & Trust Co., Nettleton, Miss.:

The crop outlook at present is very gloomy indeed. The farmers are holding the past year's crop, and seem to be making very little effort towards making another. The farmers are in very good circumstances throughout the country, the most of them being able to hold their cotton.

The Bank of Oakland, Oakland, Miss.:

1. Ten per cent. or more.

2. Both.

3. Ten per cent. increase.

4. Yes.

E. J. Ezell, president Okolona Banking Co., Okolona, Miss.:

There seems to be a universal determination on the part of our farmers to make at least 25 per cent. reduction in cotton acreage for the year 1905. But few of the farmers here ever used fertilizer; this year there will be none used. The reduction is brought about by a well-organized effort on the part of the farmers to raise less cotton and get the price back on what they will raise to a remunerative price. The farmers in this section are financially in a good condition, and can well hold what cotton they now have on hand.

The Bank of Philadelphia, Philadelphia, Miss.:

1. Yes, a reduction of about 25 per cent.

2. Mutual agreement among farmers.

3. Considerable increase.

4. Ninety-four per cent. of all who have cotton now on hand.

Bank of Oxford, Oxford, Miss.:

1. Yes, from 15 to 25 per cent.

2. Both.

3. To same extent as reduction.

4. As a rule, yes.

Bank of Pickens, Pickens, Miss.:

1. Five to 10 per cent. reduction in acreage; no fertilizer used in our section.

2. By refusal of banks and others to make advances.

3. No change except as to corn; acreage in corn will be increased in same ratio as cotton is reduced.

4. No; those who are financially able to do so have sold all their crop.

The Bank of Pontotoc, Pontotoc, Miss.:

1. Twenty-five per cent.

2. By farmers.

3. Twenty-five per cent. talked of.

4. Yes; we think so.

E. L. Selby, manager Bank of Pope, Pope, Miss.:

As far as we can learn about the cotton situation, there seems to be a determination on the part of farmers in this section to reduce the acreage of this year's crop at least 25 per cent. Most of the well-to-do farmers are holding last year's crop, and don't seem at all anxious to sell. The bankers and merchants are assisting in the plan, and it is our honest opinion that this year's crop will be reduced at least 25 per cent.

J. M. Taylor, cashier Mississippi National Bank, Port Gibson, Miss.:

Crop of 2,000,000 bales less for 1905 than for 1904.

Leon Tyrone, cashier Bank of Blountville, Prentiss, Miss.:

There will be a reduction in the acreage of 25 per cent.; in fertilizers 33 1/3 per cent. Will not require agreement among farmers, however; they are promising to do so. They will not be supported by banks as freely, but this is not required. No attention to diversified farming save for local consumption. Yes, the farmers are in position to hold cotton and still make another crop.

Phil. A. Rush, president Tate County Bank, Senatobia, Miss.:

4. Yes.

If cotton remains low, below 8 cents at the stations, the present holdings will continue in hand, and the fact that it is low and the fact that it is known that the unused supply will keep it low will cause all thinking men to plant more corn, potatoes, etc., and less of cotton. If, on the other hand, the bulls should force the price up to 9 cents before planting time, the farmers would take that as an indication of ability on the part of their friends to obtain a good price, and you would see a good large acreage.

T. J. Poitevent, president the Shelby Bank, Shelby, Miss.:

The decrease in cotton acreage in Bolivar county will surely be larger than it has been for a number of years; much more corn will be planted. Fertilizers are not used in our county. The banks and factors will advance much less than they have been doing in the past, and the farmers will make their cotton cheaper and raise less of it. The farmers in good financial shape. Very little cotton is held here in our immediate neighborhood, and nearly all was ginned out before Christmas and sold.

R. L. Longino, cashier Merchants and Planters' Bank, Silver Creek, Miss.:

Fertilizer bills will be cut down considerably, say, one-third; can't say yet as to acreage; am afraid it will not be cut

down; there is no start made yet, but will have meeting in a few days of farmers and business men to discuss things of this nature.

Bank of Tunica, Tunica, Miss.:

It is the general belief in our county that all farmers will plant less cotton and more foodstuffs this year than in the past.

The farmers are in a seemingly prosperous condition, and what cotton remains unsold they are able to hold for higher prices.

First National Bank, Tupelo, Miss.:

1. Reduction in acreage 25 per cent.; fertilizers 50 per cent.

2. General agreement of the farmers.

3. Grain, hay and stock.

4. Most of them are.

Meetings for Diversification.

R. P. Turner, cashier Bank of Tutwiler, Tutwiler, Miss.:

The acreage will be decreased at least 25 per cent. The crops to be planted will be diversified, the planters raising cotton, peas and corn, also hogs, cattle and mules, whereas heretofore they raised only cotton. The State Farm, which is located at Parchman, eight miles from here, will also reduce its acreage at least 25 per cent., raising more of the above crops. The planters here are very enthusiastic over the recent meeting of the Cotton-Growers' Association at New Orleans, La., and have accordingly resolved to hold similar meetings all over the State. Their first meeting here is being held today, and will result in planting more corn, peas and feedstuffs and less cotton. There will be no fertilizers used.

P. S.—Have just heard from the chairman of our meeting here today, and the voice of same indorses the above.

Bank of Union, Union, Miss.:

1. Twenty-five per cent.

2. General agreement among farmers; bankers willing to assist them in every way.

3. Practically nothing.

4. At least 75 per cent. of them in this section.

C. H. Butt, cashier Vaiden Bank, Vaiden, Miss.:

1. Twenty-five per cent.

2. By agreement; banks and merchants form this.

3. At a mass-meeting on Saturday, February 11, attended by farmers, merchants and bankers, they agreed to reduce cotton acreage 25 per cent.; raise more corn, meat, etc.

4. The farmers are generally in good shape, and with assistance that banks offer can hold their cotton.

B. W. Griffith, president First National Bank, Vicksburg, Miss.:

In my judgment, there will be a reduction in the cotton acreage in this vicinity for the present year amounting to between 10 and 15 per cent. This decrease will be largely due to diversification in crops, the farmers planting more corn, oats, peas, etc., so as to live more at home. Our farmers are in good financial condition as a class, but have not held back their cotton to any great extent, and are marketing from time to time on basis of present prices.

NORTH CAROLINA.

James P. Sawyer, president Battery Park Bank, Asheville, N. C.:

We are west of the Blue Ridge in our State, and it is too cold here for the staple. Our view of the situation is that our planters will not cultivate less cotton till their land is worn out and will not

produce it. This has been their past history, and we think they will not change it. When the price of cotton is very low they will meet in convention and resolve to plant less cotton, but when the planting season arrives a majority of them act upon the presumption that others will plant less, and put in a larger crop than usual, expecting to get a big price for a short crop. Result—as large or larger crop than before.

O. M. Hooker, cashier Bank of Aurora, Aurora, N. C.:

1. Cotton acreage perhaps 10 per cent.; fertilizer sales perhaps 40 per cent.
2. General agreement.
3. Our section is already right much interested in trucking, and has been for some years.

4. Most of cotton in this section is already disposed of. If it had been held farmers would have to borrow if they could, which is doubtful.

Foreman Lentz Company, China Grove, N. C.:

We feel confident that there will be a decrease in the use of commercial fertilizers and the cotton acreage 25 per cent. This decrease in acreage will be brought about not by general agreement, but with strong belief on the part of individuals that a decrease in acreage and the use of commercial fertilizers will command a higher price for that produce. Diversified crops are being much agitated, and considerable progress will be made in that respect. Majority of farmers are in position to hold their cotton.

Lee H. Battle, cashier City National Bank, Greensboro, N. C.:

We are not in the cotton belt, and therefore are not in position to speak advisedly regarding the acreage in cotton. The farmers in this, the Piedmont section of North Carolina, diversify their crops, and do not depend upon any one crop. I think the farmers generally all over the South are in good condition, and in far better shape than they have been in many years.

M. G. Dalrymple, assistant cashier Bank of Jonesboro, Jonesboro, N. C.:

1. They will reduce acreage one-quarter to one-third per cent., and will not use so much fertilizer.
2. Agreement among farmers.
3. Good progress.
4. Yes; those that are will help those that are not.

W. E. Grigg, cashier Bank of Lincoln, Lincoln, N. C.:

The cotton acreage in this section will be reduced 25 per cent. by agreement among the farmers, who are amply able to hold their cotton and put another crop on top of it. This will reduce the purchase of fertilizers correspondingly, for they will devote their attention more to diversified agriculture, and for this they have enough fertilizer of home make to use. Our banks are perfectly willing to extend the farmers all the accommodation they need, consistent with safety, should they require aid.

The Bank of Rowland, Rowland, N. C.:

1. About 15 per cent.
2. The merchants will not advance as freely and the low price of cotton.
3. Tobacco acreage will be increased some.
4. As a whole, no.

The Bank of Mooresville, Mooresville, N. C.:

1. Think so, to extent of 15 or 20 per cent.

2. By general agreement and also refusal to make advances by merchants.
3. Nothing at all done as yet on account of bad weather.
4. They can hold only a small part of it into next crop.

Chas. H. Belvin, president National Bank of Raleigh, Raleigh, N. C.:

1. Yes; 25 per cent. for both.
 2. By general agreement among farmers, backed by public sentiment; banks aiding farmers to hold.
 3. Twenty-five per cent. of people have concluded to make enough to eat on farm.
 4. Yes.
- There will be an increase of the use of fertilizers for corn, oats, peas, potatoes, etc.

Wachovia Loan & Trust Co., Spencer, N. C.:

1. Probably about 25 per cent. of both cotton and fertilizers.
2. By agreement among farmers.
3. The farmers in this section have been diversifying their crops for years, and will now do so more than ever.
4. The larger farmers are.

Bank of Tarboro, Tarboro, N. C.:

1. Decrease acreage from 20 to 25 per cent.; fertilizers drop off 50 per cent.
2. By the farmers.
3. Twenty per cent.
4. Those that have it now are.

Cotton in Hands of Better Class.

I. W. Mitchell, assistant cashier the Bank of Youngsville, Youngsville, N. C.:

I attended a meeting of the farmers Saturday, February 10. The purpose of this meeting was to decide as to the reduction in acreage and decrease in fertilizers. The meeting decided to reduce acreage 25 per cent. and decrease in fertilizers 25 per cent. The decrease will be brought about by agreement and refusal of banks and other factors to advance against cotton growing as freely as in former years. The decrease in acreage in cotton will cause the farmer to turn his attention to planting more corn and peas and all farm supplies. The extent of this will about equal the reduced acreage. The cotton is now in the hands of the better class of farmers, who, I believe, will hold for higher prices. They seem determined to hold and decrease acreage.

OKLAHOMA.

Bank of Agra, Agra, Okla.:

1. No reduction.
2. Believe acreage will be as large as last year.
3. None.
4. No; cotton all being marketed now.

J. A. Henry, president First National Bank, Altus, Okla.:

We are urging the farmers to diversify their crops and to reduce the acreage in cotton this season. They signify a willingness to reduce acreage at least 25 per cent. over last year. I have no doubt but that the acreage will be reduced at least 25 per cent., as there is now a very large oat crop being put in. The farmers are in very fair shape to hold their cotton over until next fall, while we are carrying considerable cotton for the farmers; however, the bulk of it would be sold if the price would advance to, say, eight-cent basis.

Canadian Valley Bank, Asher, Okla.:

The farmers in our community are forming unions to regulate different matters and forming an agreement to reduce their cotton acreage to at least 25 per cent.; more corn, potatoes and hogs will be raised this year than last; they say they cannot afford to put in so much time rais-

ing cotton when the price is so low. The farmers are in condition to hold what cotton they now have on hand. No need of any fertilizers here.

S. A. Stonehocker, cashier Blair State Bank, Blair, Okla.:

After a very careful canvass of our customers and all those we have come in contact with, the crop will be reduced in this immediate vicinity about 20 per cent. in cotton acreage from the year of 1904. There is no fertilizer of any kind used in this county, as it is not necessary. The farmers have seemingly just agreed to reduce the cotton acreage by mutual consent, and from the fact that 80 per cent. of them have to buy all their rough feed and grain, and they now have just begun to realize the fact that it does not pay them to depend upon some other man to raise their feed and then put in a strictly cotton crop. A great many farmers have borrowed money from the Texas banks on their cotton, and will be able to hold it, as they have secured a very low rate of interest; the remainder of them are able to hold their cotton with possibly a little help from their home banks in the cotton chopping time, when it takes more or less ready money to hire extra help.

D. B. Cook, cashier the State Bank of Calumet, Calumet, Okla.:

This part of Oklahoma planted a small acreage of cotton for the first time last season, and this was done because wheat was plowed up and cotton was high. Nearly all were satisfied with results, but still I think but little will be planted this season, partly because of the low price and partly because the farmers are nearly all Northern farmers and used to corn and wheat raising; later on, however, we can tell better what will be done; at present the ground is covered with snow and winter is here.

The Carney State Bank, Carney, Okla.:

1. Thirty per cent.
2. General agreement.
3. The 30 per cent. acreage will be planted to oats and corn.
4. Not over 10 per cent. of them.

F. C. Hoyt, cashier First Bank of Cestos, Cestos, Okla.:

This is not a cotton country here, but some cotton raised. I do not think there will be much planted next year here.

J. A. Sharpe, cashier Chattanooga State Bank, Chattanooga, Okla.:

The reduction in acreage of cotton in this vicinity will be from 35 to 50 per cent.; no fertilizers used. The decrease is caused by farmers—who came to this section from the North—being disgusted with the crop. There is now diversification to considerable extent here, and it is bound to increase. Cotton is being held firmly, and farmers only sell what they are obliged to. Many can hold and plant another crop.

Bank of Cooperton, Cooperton, Okla.:

The outlook for the cotton crop for 1905 in this vicinity is that the acreage will decrease 33½ per cent. off 1904 by a general agreement of all farmers. There will be a big increase in all crops here this season except in the cotton crop. Seventy-five per cent. of the farmers will be compelled to sell cotton by June 1.

Custer County State Bank, Custer, Okla.:

1. Yes, probably 40 per cent.
2. By farmers on account of low prices.
3. Our farmers are already diversifying crops, and will do more diversifying.
4. Yes.

Arno Beyer, president Farmers and Merchants' Bank, Crescent, Okla.:

In our opinion, in this part of the country there will not be much if any decrease in the acreage of cotton this year. Some cotton is being held here for better prices. People here are in shape to grow another crop. We do not use fertilizers here.

Have None to Hold.

Citizens' State Bank, Custer City, Okla.:

From present indications there will be about two-thirds of a crop of cotton in this vicinity this season, owing to the present low price of cotton and the trouble in securing help during the picking season. We do not think the banks not advancing money will make any difference. The farmers here have sold practically all of their cotton, and have none to hold over for the next season. No fertilizers are used in this section. Many different kinds of crops are raised here every year, and do not think there will be any difference this year.

Large Acreage of Wheat.

A. North, cashier the First State Bank, Davidson, Okla.:

There will be a reduction of cotton acreage in Comanche county of from one-quarter to three-quarters. No fertilizers are used here. Last spring all grain and other crops failed completely, and nearly all of cultivated land was planted to cotton. There is a large acreage of wheat, and preparation for a very large acreage of oats and corn. Quite a number of people will not plant any cotton. Not much cotton being held by farmers. What few have any are able to hold until another season.

The Bank of Drummond, Drummond, Okla.:

No cotton raised in our county to amount to much.

Bank of Earlsboro, Earlsboro, Okla.:

Farmers are organizing, but we cannot learn just how much the acreage will be decreased.

Washita Valley Bank, Fort Cobb, Okla.:

Acreage will be about three-fourths what it was 1904, on account of low prices. Farmers are in good condition here; will hold unless prices get better. This country grows anything, and cotton has been raised in recent years on account of good prices.

C. B. McHugh, vice-president Bank of Commerce, Frederick, Okla.:

1. Will be reduced 50 per cent.; no fertilizers used here.
2. By agreement.
3. Other crops will be grown, principally oats.
4. Yes.

Joe L. Porter, cashier Citizens' Bank, Geronimo, Okla.:

1. Acreage will be cut in two; each farmer will put in only what he can cultivate without help.
2. General agreement.
3. More than twice the usual acreage will be put to corn and oats.
4. Yes.

Want of Funds the Cause.

T. J. Laws, cashier Jones-Olds Bank, Granite, Okla.:

There is talk of cutting down the acreage one-half, but we think that 30 per cent. will be a close estimate. Farmers here use no fertilizers. The decrease will not be brought about by agreement, but will be cut down for want of funds among the farmers. Last year the farmer had

plenty of money, and he hired expensive help to put out and chop the cotton. Some paid as high as \$2 per day for choppers. This time they will be forced to put in other crops, as cotton is an expensive crop, and they have no money to go ahead, and the price of cotton as present will not induce them to strain every point as last year. The majority of renter farmers are not in a position to hold their crop until next season. This being a new country, they have not paid out their first debts made upon their arrival.

J. G. Hill, cashier Bank of Gotebo, Gotebo, Okla.:

The best information that we are able to obtain indicates that the acreage will be decreased at least one-quarter, and, of course, some farmers are cutting down their acreage one-half. Those that have held this long are generally able to hold over if they desire to do so.

Help Problem Serious.

Robt. Sohlberg, cashier Guthrie National Bank, Guthrie, Okla.:

I am not in a position to give you a great deal of information regarding the cotton situation, but rather think that there will be less cotton planted this year than common, on account of the very low price. Wheat and corn are bringing good returns; therefore think there will be more of that planted than cotton. My reason for thinking that there will be a shortage in the cotton acreage is from the general feeling with farmers that they can make more out of other crops with less trouble. The problem of finding help to pick the cotton is a serious one in this locality. The banks have not refused to loan money to good customers that can furnish ample security.

J. E. Ernst, cashier Citizens' Bank, Headrick, Okla.:

1. There will be a reduction of perhaps one-third.
2. Partly by the "Farmers' Union" and refusal of banks to carry them.
3. Not in shape to hold.

The Bank of Ingersoll, Ingersoll, Okla.:

There is no cotton raised in this section whatever, most of the land being in wheat, for which there is a splendid prospect at this time. Farmers all have money, and could withstand failure.

J. S. Kelly, cashier the Bank of Jefferson, Jefferson, Okla.:

The bankers are disposed to help farmers hold the present crop of cotton, but will not advance as freely as heretofore on crop to be planted. There are indications of a decrease of 50 per cent. in cotton acreage. No fertilizers used.

F. W. Smith, Citizens' State Bank, Lawton, Okla.:

I believe there will be at least a 25 per cent. reduction in the acreage this year, not because the banks will refuse to furnish the money, but as a mutual understanding among the farmers, owing to the low price of cotton this last year. Instead of planting cotton this spring, they will plant oats and lean towards a diversification of crops. I believe the farmers here are able to hold their cotton until they make another crop. The banks seem very willing to aid them.

Not the Whole Dependence.

H. A. Hawk, vice-president the Farmers' National Bank, Lexington, Okla.:

The acreage of cotton will, we think, be very materially decreased in this neighborhood the following season, from the talk gathered from the farmers. We are not fully clear on this, but think as there is

several local organizations among the farmers and promise of there being a general "Farmers' Union" before the marketing season of this year, we are inclined to think there will be an understanding between the farmers themselves. Cotton, while the main crop, is not wholly depended upon by the farmer here, as this locality will produce almost anything that can be raised in this zone. Many of the farmers, some a class least expected, are boasting of holding their cotton until the next year's crop will be ready for the market. Fertilizers are not used here at all.

S. W. Hill, cashier Bank of Woolsey, Lucien, Okla.:

We are of the opinion that there will be a very much larger acreage of cotton this year than heretofore. The majority of our farmers disposed of their crop of cotton before the price declined very materially, and as a result they made such a large profit that most of them will increase their acreage this year. In this vicinity wheat and corn are the main crops; nearly every farmer follows diversified farming, and cotton is more of a side line with our farmers than a crop upon which they place their dependence for profit. As a result the farmers who raise cotton are generally prepared to hold one crop until they get what they consider an equitable price for it.

The First National Bank, McLoud, Okla.:

1. Reduction of acreage probably 20 per cent.; fertilizers not used here.
2. No general agreement. Advances will be less free than formerly to some extent.
3. Probably somewhat larger crops of oats, corn and potatoes will be planted.
4. No, not as a general rule, and only a few are so situated.

J. O. Blakeney, cashier Citizens' Bank, McLoud, Okla.:

In our opinion, there will be a decrease of about 20 per cent. in the acreage of the cotton crop this year. The decrease will be on account of the unprofitable crop of last year, in which most every planter lost on at least a part of his crop. There is a considerable agitation on the subject of diversification, and more potatoes and grain will be planted than in former years. The farmers in this vicinity are not able to carry their cotton over to next season, but have offers of money at a low rate, which many are accepting.

C. H. Brand, cashier Bank of Moore, Moore, Okla.:

1. I do not notice any decrease in acreage of cotton, talking with farmers.
2. By general agreement by farmers.
4. I believe they are in this community.

No Disposition to Sell.

L. C. West, president Farmers and Merchants' Bank, Mountain View, Okla.:

As much cotton will be planted in this neighborhood as last year. The farmers who have held their cotton up to this time are in shape to hold it until the next season, and show no disposition to sell, and they will have no difficulty in getting what money they want from the banks for the planting of the next year's crop.

Edwin Pierce, vice-president Bank of Commerce, Oklahoma City, Okla.:

Oklahoma is not a "cotton State" in the sense that the term applies to Texas and other Southern States. Oklahoma has always raised diversified crops, cotton ranking as second or third in importance. I do not look for any material reduction in cotton acreage this year, and no de-

crease in the use of fertilizers, as no commercial fertilizers are used in Oklahoma. If there is any decrease in cotton acreage it will be on general principles of diversified farming, and not on account of refusal of banks or factors to advance against cotton growing, as little or none of that is done in this section. Farmers, as a general thing, are able to hold what cotton they now have and still make another crop, and banks are generally disposed to make reasonable loans on the same if assistance is needed.

George R. Sutton, cashier First National Bank, Prague, Okla.:

From what the farmers tell us, there will be a reduction in acreage of cotton in this locality of about 25 per cent., but, of course, the actual amount depends much on weather conditions later. This decrease will be brought about by general understanding among farmers on the advice of bankers and business men. The land not planted in cotton will be used for grain and potatoes. The farmers here are in condition to hold their cotton until another season if they desire, and the banks are able and willing to make them any loans on it which they may require.

The Bank of Lawson, Quay, Okla.:

1. Yes; one-third.
2. Present low prices of cotton and ability to raise corn and stock with less labor.
4. Nine-tenths of 1904 crop marketed already.

C. J. Johnson, cashier State Bank of Rocky, Rocky, Okla.:

There will be a decrease in cotton acreage in our vicinity of full 50 per cent. this season. No fertilizers used. Decrease is on account crop prospects for wheat, oats, etc., which are very fine. Last season we had a wheat and oat failure, and land originally seeded to small grain was planted in cotton after failure of small grain crop. Farmers here are able to hold and are holding 40 or 50 per cent. of this last crop of cotton.

The Roosevelt State Bank, Roosevelt, Okla.:

1. Decrease 30 to 40 per cent.
2. Refusal of banks to furnish money.
3. Oats, corn and wheat goes in place of cotton.
4. No.

When Spring Rains Are Early.

J. B. Hines, cashier First Bank of Roosevelt, Roosevelt, Okla.:

The cotton acreage will be reduced probably 50 per cent. as compared with last year in this locality. The first cause is the low prices and surplus; second, the farmers in this new country (opened for settlement in 1901) are from the North, and not cotton farmers, and there is a good season in the ground now for oats, etc. The cotton acreage in this vicinity will always be small when the spring rains come early enough to plant anything else.

C. W. Fonda, president Farmers and Merchants' Bank, Seiling, Okla.:

We are on the northern limit of cotton-growing, and while it was the general opinion that an increased acreage of cotton would be put out, the slump in price has caused a change, and it now looks as though the acreage would be about the same as last year.

Too Early for Predictions.

Bank of Commerce, Shawnee, Okla.:

Unless the extremely cold weather continues, which is hardly probable, there will be considerable diversification of crops this year; however, this is a trifle too early to make predictions regarding this

at the present time. Should it last it will crowd early potato planting, corn and oats, and as cotton can be planted in this section as late as May 15 and then make crop, it might be that more cotton will be planted than would at present appear probable; but there is no reason to believe that such a condition will come about; hence we feel safe in saying that the acreage will be reduced about 50 per cent. The farmers are in excellent condition to hold the staple until another year, or even longer. Banks locally are making liberal advances, but are advising diversification. No combination to force this condition, but we think it will prevail largely in this section.

Potatoes, Corn, Grain.

H. T. Douglas, president the Shawnee National Bank, Shawnee, Okla.:

There will be a reduction of 25 per cent. of the cotton acreage in this locality, the voluntary act of the farmers. No fertilizers are used in this section. This is a diversified section, the percentage of potatoes, corn and small grain averaging up well with the acreage of the cotton. The farmers are in financial condition here to hold what cotton they have on hand and still make a crop. The percentage of the cotton being held by the farmers will not exceed 15 per cent. of the total crop of 1904-1905 in this section.

The Farmers and Merchants' Bank, Sterling, Okla.:

1. Twenty-five per cent.
4. No.

Not Dependent on Cotton.

W. E. Hodges, cashier First National Bank, Stillwater, Okla.:

We are inclined to think that this year's cotton crop will be reduced a great deal in the acreage planted, on account of the present market. This section of the country already diversifies its crops to a large extent. We raise wheat, corn, oats, cotton and all other agricultural products; hence we do not depend alone on the cotton crop. In reference to fertilizing, we have never used it in this section of the country, as our land does not require it. I do not think that the decrease in acreage of cotton is on account of an agreement among the farmers or by the refusal of banks to advance money, as it is not customary among the banks of this section to advance any money on growing crops. The farmers that are now holding their cotton of last year, as a rule, are able to hold same, while it is only a small amount that is being held, and I do not think would affect the market or conditions in any way.

Lee Patrick, vice-president Stroud State Bank, Stroud, Okla.:

1. Do not look for a marked reduction in acreage.
2. Reduction will be made by a general desire for more diversified farming.
3. Marked progress will be made; I judge about 20 per cent.
4. Farmers are holding but little in this locality; none will be held over.

The Exchange Bank, Tecumseh, Okla.:

1. Yes; one-quarter.
2. General agreement to some extent and for the further reason that banks will not advance as freely as heretofore.
3. To a limited extent this year, but will increase rapidly.
4. Very many of them are.

Their Money Crop.

W. B. Piper, cashier Blaine County Bank, Watonga, Okla.:

The cotton grown in this county is largely grown by colored farmers who own

their own land. Cotton and corn are their principal crops. Cotton seems to be their main, and while the prospect for higher cotton seem to be rather poor, still this is the one crop they rely on to furnish them money. It is grown with but little help from banks and merchants, and what banks might or might not do will cut but little figure in this vicinity.

The First National Bank, Walters, Okla.:

1. Yes, in acreage of cotton and in fertilizers one-half.
2. By both.
3. Double any other year.
4. Yes.

Cotton Not Yet Ginned.

A. R. Adams, cashier Yale State Bank, Yale, Okla.:

There will be little if any reduction of acreage in cotton in this vicinity in the coming year. There will be no decrease in fertilizers, as they are not used here. It has not been the practice of banks or others to make advances against cotton growing to any extent among us. Diversified agriculture has been given attention here ever since the settling of the country to a certain extent. There is more cotton being held by farmers at this time than at any previous time in the history of the crop in this section, but nevertheless about 90 per cent. of the crop has been ginned and marketed, and a large part of the cotton not marketed has not been ginned. These answers will apply to a large part of Eastern Oklahoma.

SOUTH CAROLINA.

Less Cotton, More Money.

Jos. J. Fretwell, president People's Bank of Anderson, Anderson, S. C.:

I think the decrease in acreage planted to cotton, as well as the decrease in the use of commercial fertilizers for the coming season in this section, will amount to at least 25 per cent. The farmers seem to be in good earnest in carrying out this plan. Advances by banks and merchants will be continued as heretofore, but the reduction in acreage and fertilizers will result from an intelligent and persistent determination on the part of the farmers to make less cotton and get more money for it. Attention to diversified crops has already begun in this and adjoining counties, where the increased mill village population will require vegetables and other food supplies to an extent never before known, and the crops thus required will amount to at least as great an acreage to make as the proposed reduction in the cotton crop. Our farmers, as a rule, are in better shape financially than ever before, and with the assistance rendered them by the banks and merchants will be able to hold their cotton crop now on hand and make another crop with comparative ease.

Sileox & Co., Charleston, S. C.:

Your letter to the Enterprise Bank of this city was handed to us for reply. From the lights now before us we believe that the large or independent planters will reduce both acreage and the use of fertilizer from 20 to 30 per cent.; the smaller farmers will in some cases plant about the same, or possibly reduce their acreage about 10 per cent. We believe that the acreage reduction is brought about by the recent decline in prices, together with the agreement generally made among the farmers. A great many planters realize that at the present prices of cotton it will be impossible for them to make ends meet if they plant a full crop of cotton, and have determined to hold the balance of their cotton and only plant a small crop for another season, putting a good part of their farms in corn and peas.

Exchange Banking & Trust Co., Charleston, S. C.:

We do not come directly in contact with farmers, but from what we learn from our correspondents in various portions of this and the adjoining States, there will be a reduction all along the line both as to acreage of cotton to be planted and of the amount of fertilizers that will be used. There is one farmer that we happen to know as to his fertilizer order; the amount was cut down from \$1000 as last year to about \$600 for this season.

C. P. Mangum, cashier Bank of Chesterfield, Chesterfield, S. C.:

1. Fifteen per cent. reduction in cotton, 25 per cent. reduction in fertilizers.
2. General agreement as to reduction in acreage. As to banks, we think they will do what they can conservatively; no factories, we have none in our county.
3. Too early yet to tell, as nothing has been done, owing to the extreme cold weather.
4. Generally speaking, would say we think they are in fair shape for holding.

The Bank of Kershaw, Kershaw, S. C.:

1. Yes; 25 per cent.
2. By agreement among the farmers.
3. I can't say.
4. Yes, the larger farmers are, and say they will hold their cotton.

Bank of Prosperity, Prosperity, S. C.:

1. Yes, from 20 to 25 per cent.
2. By agreement.
4. Fifteen per cent. can hold; 25 per cent. must sell. We have 40 per cent. of cotton crop still unsold.

Win. T. Stokes, Jr., president Bank of Santuck, Santuck, S. C.:

I cannot just now say if there will be a reduction in acreage or if fertilizers will be used as heavily as in years previous.

F. M. Farr, president Merchants and Planters' National Bank, Union, S. C.:

1. From the consensus of opinion gathered from farmers in our county, we are satisfied that there will be at least 25 per cent. reduction of both area and fertilizers.
2. Decrease will be by general agreement of farmers.
3. Diversified agriculture will receive increased attention in our county.
4. Most farmers are in financial condition to make another crop.

Peden & Anderson Banking Co., Westminster, S. C.:

1. Yes; 20 per cent.
2. General agreement.
3. Now largely practiced.
4. Yes.

TENNESSEE.

D. B. Dodson, cashier Bank of Alamo, Alamo, Tenn.:

The leading farmers of this county (Crockett) have met and pledged themselves to cut the cotton crop acreage at least one-fourth this year, and several expressed themselves as sure the whole county would have from one-third to one-half less acreage in cotton, and would turn their attention to corn, wheat, etc. We think the majority of the farmers are able to hold their cotton, and up to this time have sold practically none since the slump. This and adjoining counties are in good shape financially, and the farmers are never organized than ever before.

W. T. Boyd, cashier Farmers' Union Bank, Covington, Tenn.:

1. Thirty-three and one-third per cent. No fertilizers used here.
2. By general agreement among farmers.

3. Increase and decrease in acreage of cotton about correspond; nothing done yet, on account of bad weather.

4. Yes.

The Gates Banking & Trust Co., Gates, Tenn.:

1. Yes; 25 per cent. or more.
2. All classes favor a reduction.
3. No farm work being done yet with exception of sowing more oats, clover, etc.
4. Yes.

J. W. Vanden, cashier First National Bank, Jackson, Tenn.:

1. Yes; 25 per cent.
2. By general agreement of the farmers. The banks and merchants will make advances regardless of what the farmers do.
3. Increase of diversified agriculture above 30 per cent. over last year.
4. Yes, undoubtedly so in this section.

First National Bank, Memphis, Tenn.:

1. Yes, decrease of fertilizers; can't say to what extent.
2. Will be able to obtain plenty of money for a new crop.
4. Yes.

Q. Shumate, cashier Newbern Bank, Newbern, Tenn.:

1. Yes; 50 per cent.
2. Common consent of the farmers.
3. We raise corn, cotton, oats, hay, cattle, horses, mules, sheep and hogs, clover and cowpeas.
4. They are, as a rule.

Raising Home Supplies.

A. E. Eller, president Gibson County Bank, Trenton, Tenn.:

Most all of our farmers sold their cotton when the price was high. I think very little cotton is being held by farmers in this county. Our farmers are in good financial shape, and I think will raise about the usual crop of cotton next season. I don't think the raising of cotton is overdone in our county. The farmers diversify considerably, and raise about what they need to live on.

TEXAS.

Alvord National Bank, Alvord, Texas:

1. Yes; 25 per cent.
2. Both; mainly farmers' agreement.
3. Twenty-five per cent. progressing fairly well.
4. About one-half are.

American National Bank, Austin, Texas:

1. We are urging 25 per cent. reduction; we do not use fertilizers.
2. By agreement among farmers.
3. Prospects for diversification are improving, which bankers and merchants encourage as much as possible.
4. Many of them are.

Can Diversify But Little.

J. O. Wilmeth, cashier Citizens' National Bank of Ballinger, Ballinger, Texas:

Our section of the country is almost in a class to itself, as we cannot diversify, except to a very limited extent. Cotton is the only farm product that is an assured crop. We are also a new country, and settling up very fast; hence our acreage in this immediate section will show an increase of fully 25 to 30 per cent. About the only way that we can diversify is to give more attention to sheep, hogs and poultry, for which our climate is well adapted. Many of our farmers that are able to do so will decrease their cotton acreage, giving their attention to small grain, but this crop is so uncertain that it cannot be relied upon.

First National Bank, Beeville, Texas:

We cannot give you any answer to your questions as above at this time. Too early in the season. Cotton is a small factor with us locally.

William Kelly, president First National Bank, Brownsville, Texas:

We do not use fertilizers in this vicinity. Cotton crop of 1904 was practically a failure here, partly due to boll-weevil and partly to unusually heavy rise in the Rio Grande. Believe there will be more acreage planted this year than last. The increase will be due to improved prospects of a good crop, conditions so far this year being very favorable. Our principal industries this year will be rice and sugar-growing and truck-farming. Cotton does not cut a large figure with us in any year. Practically no cotton is being held in this section. Crop was small, and was marketed early. I estimate there are not over 100 bales of cotton in Cameron and Hidalgo counties at this date.

The Merchants and Farmers' National Bank, Carthage, Texas:

1. Twenty-five per cent.
2. General agreement among farmers.
3. More than 100 per cent. Will ship 100 cars potatoes this year; last year about 10 cars. Seed potatoes are here and the farmers have hauled them home.
4. Yes.

First National Bank, Center Point, Texas:

1. Twenty-five per cent.
2. Agreement among farmers.
3. Increase of 50 per cent.; turning attention to irrigation, hogs, alfalfa and truck farms.
4. Yes, and are doing it.

T. S. Cavins, president First National Bank, Claude, Texas:

There is practically no cotton raised here. Stock-farming is the principal pursuit, and at present prices there will be no cotton planted here.

Many Have Borrowed.

A. B. Robertson, president Colorado National Bank, Colorado, Texas:

There will be a reduction in acreage of cotton in this part of the country, but, in our opinion, enough new land will be put in by immigrants to counteract this reduction. We do not use fertilizers. The farmers themselves will attempt to reduce acreage. We do not think banks or merchants will attempt to influence them one way or another. Diversification cannot be recommended in this section, as small grain is nearly always a failure for lack of moisture at the proper time. Not many farmers are able to hold their cotton indefinitely. I think bulk of it will be sold by June. Many of them have borrowed money on it as collateral.

E. E. Anthony, cashier Farmers and Merchants' National Bank, Comanche, Texas:

1. Farmers, as a general rule, say they will reduce cotton acreage 20 to 25 per cent.
2. General agreement by farmers.
3. Much small grain has been and is being planted, and the farmers are going to raise more hogs.
4. Some are; not as a rule.

R. B. Long, cashier the Planters and Merchants' National Bank, Commerce, Texas:

There will unquestionably be a great reduction in the acreage in the cotton crop the coming season, brought about by a general agreement among the farmers. We do not use fertilizers in this country.

There will be more diversification this year than has ever been in this country before. The farmers can hold their cotton another year, as they were never in better condition in the history of the country than they are now. I speak from knowledge of their past, for I am 52 years of age, and was raised here.

J. D. Jernigan, cashier First National Bank, Commerce, Texas:

1. I honestly believe the cotton acreage will be reduced 20 to 25 per cent.; no fertilizers used in this country, and never was.

2. If at all, solely by agreement among farmers and the necessity of so doing brought about by the advice of bankers and merchants.

3. We hope that our farmers will sow more oats and plant more corn; there is nothing else that we can substitute for cotton now in this community.

4. The banks, so far as I can learn, will carry the farmers' cotton, even until another crop is made.

The Delta National Bank, Cooper, Texas:

1. No fertilizers used here; acreage will be reduced probably 20 per cent.

2. By mutual agreement among farmers and solicitation from the business men.

3. Farmers will plant more corn and small grain, and some potatoes will be planted.

4. Yes, with what help they will be able to get.

Corpus Christi National Bank, Corpus Christi, Texas:

1. We think 25 per cent. decrease acreage.

2. General understanding.

3. Diversification increasing. This is a good truck country.

4. Very few here are holding. Not much raised in immediate section.

First National Bank, Corsicana, Texas:

1. Yes, at least 25 per cent.

2. By agreement amongst the farmers.

3. Probably 50 per cent.; they have already largely planted wheat and oats.

4. Yes.

J. W. Phillips, cashier Citizens' National Bank, Daingerfield, Texas:

1. Twenty-five per cent. decrease in cotton and 25 per cent. increase in fertilizers.

2. By agreement of farmers.

3. We think one-third of the people more than heretofore.

4. No.

City National Bank, Eastland, Texas:

1. Twenty-five per cent.

2. By agreement.

3. Twenty-five per cent.

4. Some are, and others are going to need help.

The National Bank, Farmersville, Texas:

1. Unless cotton advances considerably, a decrease of 25 per cent. Use no fertilizers.

2. General agreement and low prices of cotton.

3. Considerable interest in this line.

4. Seventy-five per cent. that are holding can hold till fall.

J. T. Rhea, cashier City National Bank, Forney, Texas:

1. Twenty-five per cent. reduction in acreage.

2. By general agreement among farmers.

4. Yes.

Our farmers say they will reduce acreage by sowing oats and planting corn, and

we think they will do it. They are now buying oats to sow.

National Bank of Forney, Forney, Texas:

1. Farmers claim about 20 per cent. decrease.

2. Agreement among farmers.

3. Too early to say anything definite.

4. Yes.

Wm. G. Newby, president American National Bank, Fort Worth, Texas:

Our information is to the effect that by agreement among the farmers in most precincts throughout this section of the State the acreage will be reduced from 20 to 25 per cent. This has been brought about by the realization that it was the only practical way in which to prevent another overproduction, and not because of any disposition on the part of banks to withhold advances from their cotton-producing customers. Fertilizers are not used in Texas to any extent.

The reduction in cotton acreage will undoubtedly stimulate diversified farming very materially. There has been a constant agitation of the subject for several years past by the press generally throughout the State, and our farmers are fairly well educated along that line already, and are not only paying more attention to diversification in crops, but are showing a decided disposition to devote more attention to what we call small stock farming, viz., the raising of a few good cattle, hogs and sheep, poultry, etc., and to cultivate less land, but do it more intensively. In this section of the State farmers generally are financially able to hold their cotton, and where they are not the local banks are disposed to help them to a reasonable extent.

S. E. Dunnam, assistant cashier, Quinlan, Texas, Continental Bank & Trust Co., Fort Worth, Texas:

It has been agreed by the Farmers' Union of this vicinity, which is strong in numbers, this county being the birthplace of that organization, that there will be a uniform reduction of 25 per cent. in the cotton acreage. No fertilizers are used in this section of country. Preparations are already under way for diversifying by planting Irish potatoes, onions, etc., for the market, which is a new departure for the farmers of this (Hunt) county. The majority of the farmers who are holding cotton are prepared to hold indefinitely, as the banks are not disposed to force them to sell where they have obtained advances on same.

R. Waverley Smith, president the First National Bank of Galveston, Galveston, Texas:

Replying to your inquiries, beg to say that no cotton is raised in this vicinity, and it is therefore difficult to apply your inquiries to our locality. In a general way, it is our opinion that there will be considerable decrease in the acreage, which will be brought out more by general agreement among the farmers than by refusal of banks or factors to advance against growing cotton as heretofore. Our information further is that farmers in this section of the country are, with such assistance as they will receive, fairly able to hold their cotton, or a considerable portion of it, and make another crop.

Charles Gay, cashier Graham National Bank, Graham, Texas:

Our farmers here are holding about 2500 bales of cotton, and have made arrangements to hold until next fall. The disposition is to hold until next fall and to decrease acreage. All our bankers are

trying to persuade them to plant half a crop.

Citizens' National Bank, Garland, Texas:

1. No, about same.

3. Some attention to this, but offset by new lands brought in and put in cotton.

4. Yes, as a rule.

Gonzales National Bank, Gonzales, Texas:

1. About 15 per cent. less.

2. General agreement among farmers.

3. Good progress toward diversification.

4. Yes.

A. W. Storrs, Granger, Texas:

1. Possibly 5 per cent.

2. By general agreement.

3. This is strictly a cotton county; not much for diversification.

4. Yes; in better shape than any time for past 10 years.

Grapevine National Bank, Grapevine, Texas:

1. Five per cent. increase.

3. None.

4. Yes.

First National Bank, Gunter, Texas:

1. A decrease of at least 35 per cent.; no fertilizer used here.

2. Mutual agreement of farmers; every one advises decrease in acreage.

J. E. Norvell, cashier Farmers and Merchants' National Bank, Henderson, Tex.:

1. Fifteen to 25 per cent.

2. By agreement among better class especially, and to some extent by others.

3. Considerable more corn will be planted; other crops near railroad shipping points.

4. Many are; some will have to sell; these are small holders.

Live-Stock for Income.

John E. Ferguson, president Hereford National Bank, Hereford, Texas:

The acreage of cotton in this vicinity will be greatly increased this year. This part of the country is comparatively new as to farming conditions. Last year the first cotton was grown in this locality, and for that reason we think that the acreage will be increased, as it will be the best money crop that our farmers can grow. This is principally a stock-farming country, and people depend mostly upon their live-stock for their income. The farmers are in good financial condition, and look forward to a prosperous season.

G. A. F. Parker, president Western National Bank, Hereford, Texas:

In this section of Texas cotton-raising is only an experiment. While results last year show that it can be raised, and more will be planted this year, still the amount will be too small to figure in your reports.

First National Bank, Hico, Texas:

1. The farmer claims so; we do not know.

2. General agreement.

3. Reduction of cotton acreage 25 per cent.

4. Those who are holding now, yes.

Those Who Have Cash on Hand.

Sam Primm, cashier First National Bank of Ladonia, Ladonia, Texas:

1. Speaking for this community only, there will be about a 15 per cent. decrease in acreage in cotton. We use no fertilizers. If there was a pound of any kind ever used here I do not know of it.

2. Partly by agreement among farmers, but principally from the fact that when cotton gets cheap it has a tendency to

make our farmers diversify a little more.

3. All decrease in acreage in cotton makes just that much more diversified farming; hence the increase will be just what I have indicated as the decrease in cotton acreage above. This, of course, will make a larger per cent. of diversification than a decrease in cotton, as this is essentially a cotton country.

4. They are not, but the banks here are both able and seemingly willing to help them through if they want it. I might add that the farmers who have sold their cotton and the ones who practice diversification at all times are the only ones who have any actual money on hand.

O. G. Bowman, cashier Citizens' National Bank, Hillsboro, Texas:

1. There will undoubtedly be from 15 to 25 per cent. decrease; fertilizers not used here.

2. By general agreement among farmers. Banks have not spoken of not making usual advances based on cotton.

3. Considerable attention will be paid to diversification.

4. Generally speaking, yes, in our section.

Citizens' National Bank, Longview, Texas:

1. Yes; 20 per cent.

2. By general agreement.

3. To a considerable extent. Preparations are rapidly being made for diversified crops.

4. Yes, sir.

J. W. Hoopes, cashier Farmers' National Bank, Manor, Texas:

1. No.

2. Farmers here are inclined to act independently.

3. None; this is cotton section.

4. Yes.

R. A. Reed, president Marlin National Bank, Marlin, Texas:

1. About 30 per cent.

2. By general agreement among farmers.

3. Diversification has a good hold among farmers.

4. I hardly think so, but banks will help them.

H. W. Robinson, president Miles National Bank, Miles, Texas:

1. Acreage will be about the same; no fertilizers used here.

3. Present price of cotton will cause farmers here to diversify as far as possible, but being a new country and new land being put in will make cotton acreage about same as above.

4. About 30 per cent. are.

First National Bank, Mineola, Texas:

1. We think there will be 33 1/3 per cent. reduction.

2. By agreement among the farmers.

3. There will be 100 per cent. more truck and fruit growing in this immediate vicinity; less in other neighborhoods, but the idea is growing universally.

4. They are in better shape than for years, and the majority of them able to hold their cotton without help.

Getting Money Freely.

H. C. Blum, cashier Farmers and Merchants' Bank, Muenster, Texas:

Farmers in this vicinity are getting all the money they require from the banks, and a great many are able to carry their cotton over till next fall without borrowing money. There seems an inclination to sell when cotton reaches 8 cents. The crop for 1905 will be cut down about 5 per cent. We have heard a great deal of talk about reduction in acreage, and have advised reduction in acreage, but as cotton

already is only one-third of every man's crop in this immediate vicinity (other two-thirds wheat, oats and miscellaneous). Most of the farmers here look to the other fellow to cut down acreage, while he will put in the same, or a little more than last year.

Stone Fort National Bank, Nacogdoches, Texas:

1. Our farmers are advocating and pledging 25 per cent. reduction in acreage.
2. Left principally to farmers, though hard times will prevent a great many merchants from extending credit.
3. This is being advocated and pressed by merchants. We have 100 acres pledged to tobacco and 200 to tomatoes and potatoes.
4. Fifty per cent. of cotton being held, and can be held indefinitely.

T. C. Jasper, cashier Plano National Bank, Plano, Texas:

1. Decrease 10 per cent.; we use no fertilizers.
2. It will be with the farmer here altogether, as we raise very little cotton in this part of the country; other crops pay better.
3. We diversify here anyway.
4. Think so in this part.

W. C. Noble, cashier First National Bank, Port Lavaca, Texas:

We are small growers of cotton, our county yielding only about 800 bales the past season. However, as I understand it, the conditions for the year 1905 will be about the same in acreage as it was for the year just ended.

Thos. E. Mathis, cashier First National Bank, Rockport, Texas:

There is little, if any, cotton raised in this county; hence our influence will be of little effect in the manner indicated.

Gibbons Poteet, cashier First National Bank, Roston, Texas:

There is general talk of a reduction in acreage, and the Farmers' Union is urging reduction. There will probably be some reduction this year, but is too early to tell how much. Think there will be more oats sowed than usual. Our farmers are in good condition for holding what they have on hand at present. No fertilizers used here.

W. F. Woods, cashier Woods National Bank, San Antonio, Texas:

We are not very well posted in regard to the cotton situation in this locality, except that the general agreement seems to be that less cotton will be planted next year, and considerable cotton is being held at this time.

T. B. Saunders, cashier First National Bank, San Augustine, Texas:

1. Yes, about 33 1/4 per cent.
2. Agreement among farmers.
3. Fruit and truck will be thoroughly tested; about three cars Irish potatoes bought by association being planted.
4. Most of them are.

First National Bank, St. Jo, Texas:

1. Yes; 25 per cent.
2. Agreement among farmers.
4. Yes.

W. P. Allen, cashier the American National Bank, Terrell, Texas:

It is my opinion that the acreage will be reduced in this county 25 per cent. There was never any fertilizer used in this county until last year, at which time there was about 25 cars used. This year there will be none used at all, as the present price of cotton will not permit the use of any

fertilizer whatever. The decrease in acreage is brought about largely by the farmers themselves. They have blanks which they are getting all the farmers to sign, binding themselves to reduce their cotton acreage at least 25 per cent. Of course, the banks and merchants will not advance near as much money as formerly, owing to the low price of cotton. Diversification is being agitated by the newspapers and also by the government. As an example there has been 30 cars of seed Irish potatoes sold here this season, and the farmers will begin planting within two or three weeks. There is considerable alfalfa planted on land formerly planted in cotton. This county raised about 60,000 bales of cotton, according to the ginners' report. There is something over 15,000 bales here. The farmers were never in better financial condition to hold their cotton than now, and a majority of them are insuring it and housing it for a year. I know of one or two large cotton farmers who have their cotton on hand this year and claim that they will not plant any cotton unless the price is much higher at planting time. In conclusion, will say that the boll-weevil has just gotten to North Texas. Last year was a perfect year for raising and gathering the crop, but if we should have a wet July it remains to be seen what figure the boll-weevil will cut in North Texas.

T. S. Garrison, vice-president First National Bank, Timpson, Texas:

1. Yes; 25 per cent. decrease.
2. A general agreement of farmers, and banks, too. We will make a decrease of at least 25 per cent.
3. They will diversify; raise potatoes, tomatoes and hogs; our farmers will raise more corn.
4. Yes, they can hold and get along with little or no help, and they will hold.

J. C. Smyth, president First National Bank, Venus, Texas:

1. Yes, the acreage will be reduced at least 25 per cent.; no fertilizers used in this section of Texas.
2. It will be brought about by general agreement.
3. Great interest being taken in diversification by all classes of farmers.
4. Yes, the farmers could hold all their cotton one year, and will do so if prices are not satisfactory.

Learn a Corn Lesson.

Chas. F. Eckhardt, cashier First National Bank of Yorktown, Yorktown, Texas:

There will be a great reduction in the cotton acreage this year, and no less than 25 per cent. The last two seasons it required 8 to 10 acres to make a bale of cotton, due to the ravaging boll-weevil. On account of high prices of cotton most of the farmers planted very little corn, with the idea that they could buy corn cheaper than raise it. They are now realizing the great mistake, and many will plant mostly corn and very little cotton. A Yorktown truck-growers' association has been organized; this will reduce the cotton acreage very much. It has been proven that the farmers here can make over \$50 per acre on cabbage at 60 to 70 cents per 100 pounds. Corn is now selling at 60 cents per bushel; our farmers can easily raise 25 bushels to an acre, and in a favorable season 30 bushels; taking this at 50 cents a bushel, will bring the farmer more money. Most of the farmers are arranging to go into the hog-raising business. To make this a success they will naturally be forced to reduce cotton and plant forage. The decrease of acreage is brought on by general agreement of the farmers. They are financially in shape to hold cot-

ton and make another crop, but very little cotton is held here. If the weevil would spread more rapidly it would be a blessing and cotton would always command a good price. As the situation now is, only part of the State of Texas is suffering, but the territory infected by the weevil is increasing every season. We have studied the habits of the weevil carefully, and we are satisfied that they have come to stay, and as far as poisons are concerned, they cannot be exterminated with it, as the weevil does not feed on leaves or squares like the caterpillar.

All farmers on a larger scale are not receiving the support of the merchants as hitherto with cash to chop the cotton, and on that account the acreage will be decreased considerably. The cotton-growing has been overdone to a very large extent, and putting most of them behind with their accounts, with above results.

Cotton in China.

In a report from Hankow, United States Consul George E. Anderson says that American cotton manufacturers must pay strict attention to the special needs in cotton goods in China if they are to hold the trade they have. He reports that the mass of Chinese people are using little or no foreign-made goods, American or others. There was a time when a large portion of the population took what it could get in the way of foreign-made goods, but in the past few years the situation has changed amazingly.

The high price of cotton in the United States and abroad generally last year resulted in the decrease of American cotton exports to China, and the present prices in the United States are having the same effect this year, for while the figures for 1904 are not yet complete, it is evident from the data to be had that there is the same general trend in the cotton trade. The practical meaning of the matter is simply that when foreign-made cotton goods get too dear the Chinese peasant buys cotton yarn and weaves his own common fabrics for shirts, tunics, bedclothes and the many purposes for which such grades of cotton goods are used.

While the possibilities of cotton production in China are enormous, Chinese cotton, generally speaking, is of low grade and probably will never be suitable for high-grade goods even under the most intelligent manipulation. The plants are stunted in appearance, seem to lack vigor, and the bolls are comparatively small, with short and uneven fibers. The plants are apparently free from disease, probably due to cultivation in small fields, almost patches, and that cotton is not a regular crop with many farmers. The soil is fertilized in the manner common to Chinese fields, but to me it looks as though the land needs a good subsoil plowing and a crop or two of legumes.

In China the growing of cotton seems to follow the law of supply and demand more quickly than elsewhere. So long as the natives can secure cotton goods abroad cheaply they raise little cotton, and much of what they raise goes to fill their wadded clothing and bed clothing. But high-priced cotton abroad is followed immediately by a widespread increase in its cultivation here, and the climate of a large portion of the empire is such that the people do not have to wait for another season to roll around before they commence to seek relief.

The increased importation of cotton yarns and fancy cotton goods probably indicates the direction to be taken by American cotton manufacture for export to China. In the way of fancy goods cheap "Turkish" towels in small sizes are demanded. Goods made in imitation of silk, even very cheap imitations, are popular,

especially for outer garments. There is a growing demand for handkerchiefs, plain, dyed and printed. The use of cotton flannel is increasing, and imports thereof are increasing. In short, the Chinese are buying more and more goods of the sort they cannot make at home, but the common grades which can be made here or which can be substituted by homemade goods must be cheap if they are to sell in China.

For Greater Cotton Markets.

A committee of the Southern Cotton Convention at New Orleans urged this week upon the President measures for extending the foreign trade of the United States in cotton goods. The committee was headed by ex-Senator McLaurin of South Carolina, and included Messrs. John M. Parker, Louisiana; Erister Ashcraft, Alabama; John C. Cary, South Carolina; D. A. Tompkins, North Carolina; James L. Orr, South Carolina; John Foad, New York; Silas D. Webb, New York; V. M. Montgomery, T. C. Duncan, W. E. Lucas, T. E. Moore and R. T. Fewell, South Carolina; S. B. Tanner, J. W. Cannon, J. M. Odell, E. A. Smith, C. W. Johnson, L. B. Holt, A. W. Hayward, W. A. Erwin, E. C. Holt, Eugene Holt and Moses H. Cone, North Carolina; R. A. Schoolfield, H. L. Moorman and W. S. Farbes, Virginia; G. G. Jordan, Thomas Barrett, Jr., E. F. Verdery, J. B. Verdery and C. A. Sweet, Georgia; T. W. Pratt, Val Taylor, R. P. Hobson and J. B. Lovell, Alabama; O. A. Robbins, North Carolina; S. S. Broadus and R. A. Mitchell, Alabama.

The Use of Fertilizers.

In a letter to Mr. G. Walter McIver, the manager in South Carolina of the Virginia-Carolina Chemical Co., Mr. S. T. Morgan, the president of the company, expresses a willingness to extend until October 1 the time of payment of notes given for fertilizer last year, and says:

"Reiterating our former statement that we have no advice to offer as to holding cotton one day or nine months, still if these few of our customers desire to have the privilege of carrying their cotton until October you are authorized to accommodate them accordingly. We are anxious to do everything that is reasonable in our power to aid the farmers, believing that their interest and ours are too closely identified for one to be materially hurt without harm to the other. We want you to continue to advise your customers that their prosperity does not depend entirely upon the prices they get for their cotton, but largely upon what the cotton costs to produce. The profit in anything is only the difference between the cost and the price received for it, without reference to what the price may be."

Texas Petroleum.

The J. M. Guffey Petroleum Co. is circulating in neat pamphlet form the statistics of Texas petroleum in 1904, based largely upon the figures of the Oil Investors' Journal of Beaumont. The estimated production in the Texas field was 19,444,300 barrels and the consumption 19,000,450 barrels. The Jennings (La.) field is credited with the production of 6,608,774 barrels. The company says that its products are now going all over the world and finding ready sale in competition with Pennsylvania, Ohio and Russian oil. Marked progress was made during the year in refining Texas crude oil, and distributing stations have been installed at New York, Boston, Philadelphia, New Orleans, Tampa, Houston, Sherman and San Antonio, from which points a large local trade is supplied with kerosene, gasoline, painters' naphtha and lubricating oils.

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